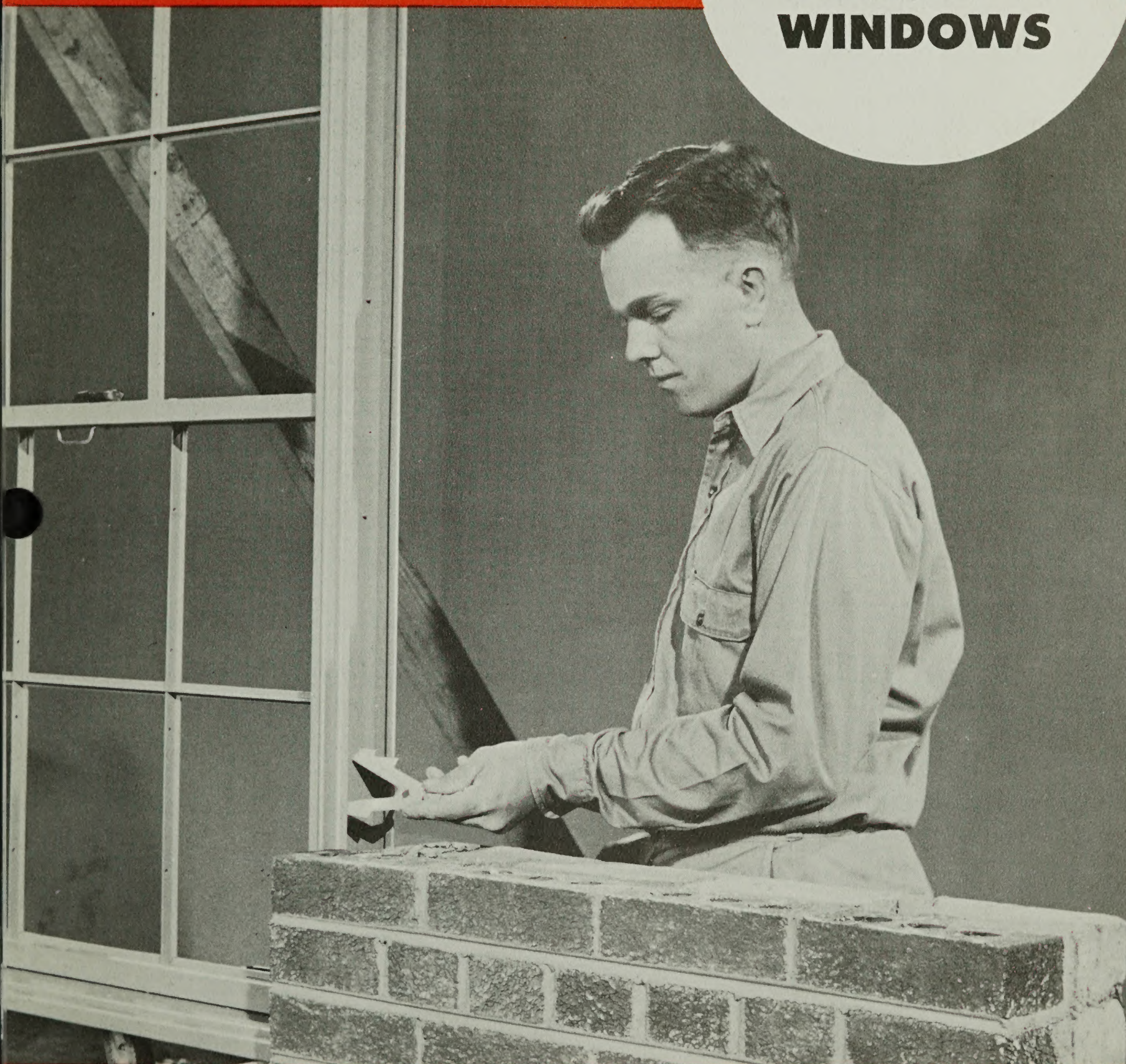


To accompany the motion
picture "HERE'S HOW"

**INSTALLATION
OF
METAL
WINDOWS**



**TRUSCON STEEL DIVISION
REPUBLIC STEEL CORPORATION**

YOUNGSTOWN, OHIO



The Fundamentals for Trouble-Free Installation of Truscon Metal Windows

The installation basics covered in this booklet are not a complicated presentation of technical information.

Actually, about a half-dozen fundamentals cover what you need to know to approach the subject of trouble-free installations for double-hung windows, casements, awnings, ranch windows, and jalousies.

Generally, the fundamentals that apply to one window apply to all of them.

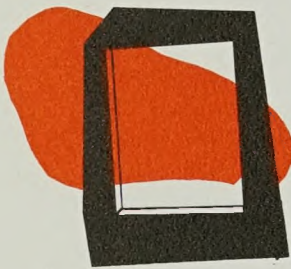
Basically, they all go into the same type of construction the same way. There are but two simple installations to learn—

1. In frame and brick veneer construction.
2. In solid masonry and concrete block construction.

The information on these 2 basic types of installations, with a few variations here and there, gives you enough information to approach any job with confidence in the results.

The contents of this booklet are built around the following basics:

A. Correctly Prepared Opening



- ✓ PLUMB
- ✓ TRUE
- ✓ CORRECT SIZE

A correctly prepared opening is one that is plumb and true and cut to the correct size, clearly indicated on the installation details in Truscon catalogs.

Dimensions shown in the catalogs are *window* dimensions.

The catalogs also note that to determine the correct stud opening dimensions, add to the window dimensions as follows:

1½" in width 1½" in height

For double-hung window add

1½" in width and 2¼" in height

B. Use of Correct Anchors for the Job

The right type of anchor must be used for each specific kind of construction.

Anchors are specially designed for frame, veneer, masonry, and concrete block construction.

The right type of fins must be used for various types of construction.

C. Variations of Installation in Different Types of Construction

- Frame and Brick Veneer in prepared wall openings
- Masonry and Concrete Block wall generally built up around window.
- Masonry openings sometimes pre-built and windows installed later.

D. Finishing Off the Wall

Application of simple fundamentals can save installation time and money, while adding greatly to the appearance of the finished job.

E. Glazing

Attention to essential details here is the final step in assuring trouble-free installation.

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NOTE: In the photographs on the following pages, sheathing paper has been purposely omitted to obtain better contrast to emphasize installation details. In actual construction, the sheathing paper would be used as a vapor barrier for more efficient insulation.

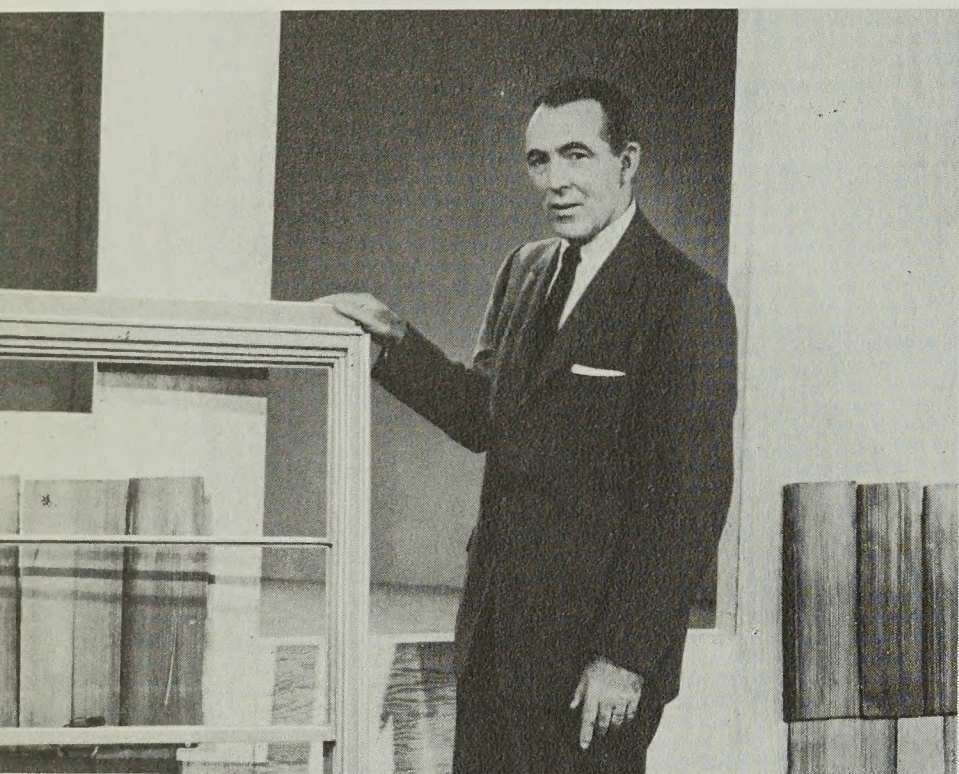
TRUSCON METAL WINDOWS

Double-Hung — Casements — Awnings — Ranch Windows — Jalousies

Basic Steps for Easy Installation In FRAME CONSTRUCTION

NOTE: The double-hung 138 is used here to illustrate installation procedures. Other windows are generally installed with fins of some type as shown on pages 18 through 27.

THE
EXTERIOR

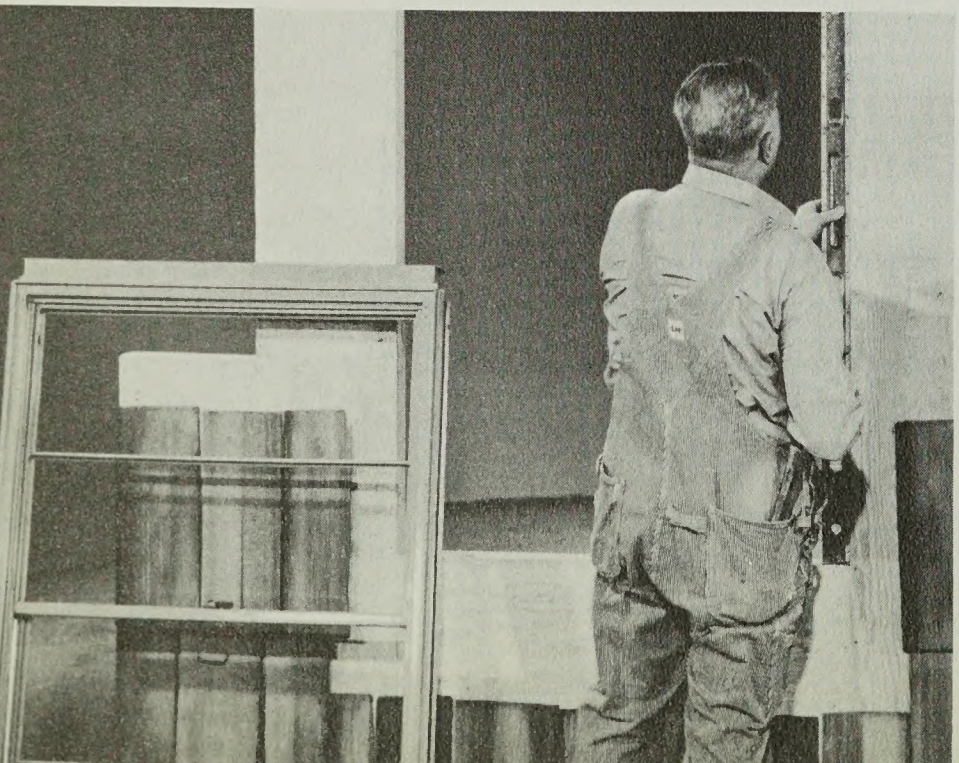


Step 1

Stud opening, correctly prepared—cut to the size clearly indicated in the Truscon catalog—is ready to receive the window.

Step 2

Check the rough framing to make sure it is reasonably square and plumb.

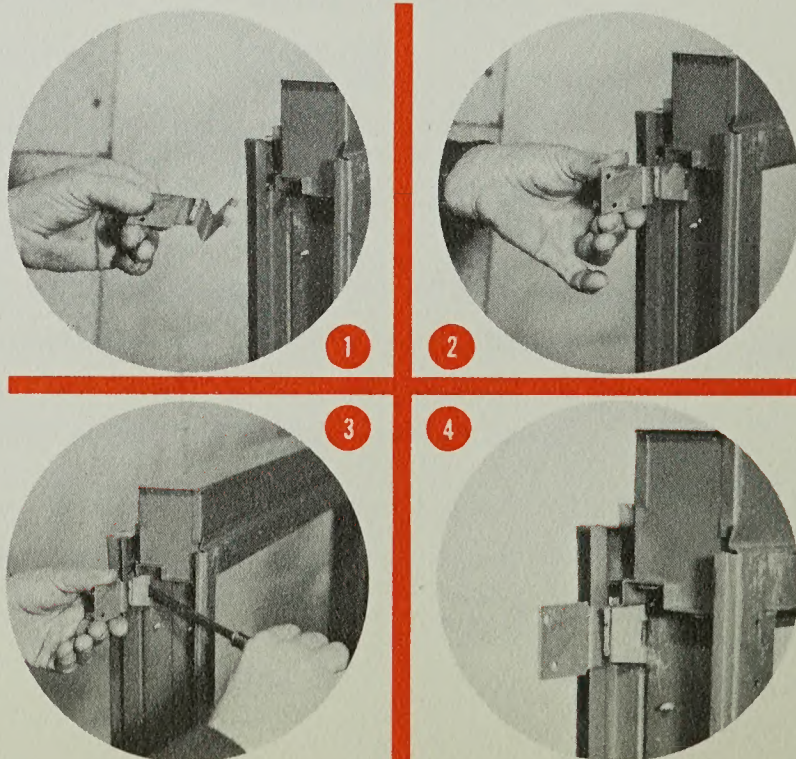


Step 3

To install double-hung 138, snap in the anchors—the correct ones for the type of construction—as shown above. Attach one anchor near the head, and one anchor near the sill on each jamb. Large windows use a third anchor near the center of each jamb.

Truscon frame wall anchors, for the 138 double-hung, as shown here, simply *snap* into place. No screws, nuts, or bolts are required.

Preparing the opening, and attaching the anchors, is all the make-ready required.

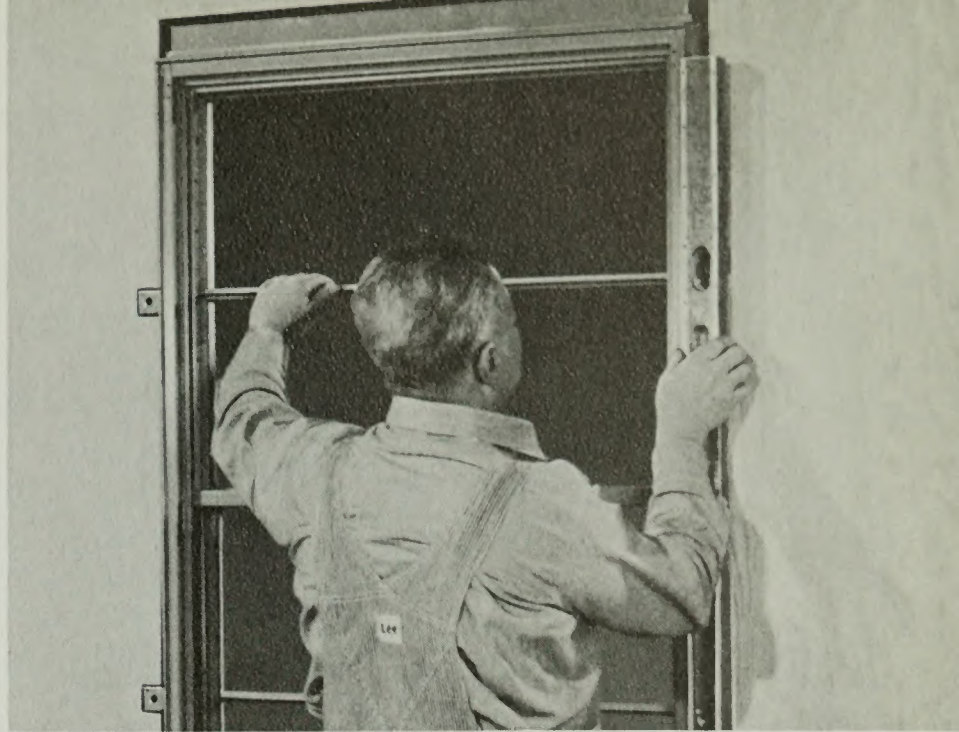


Step 4

After the anchors have been attached to the window, set the window in the opening.

Here's where the use of precision-built windows, square and true, and exactly the right size, pays off. They fit into the correctly prepared opening without forcing or twisting. If the opening is correct, there's no danger of bowing or racking the window by forcing it.

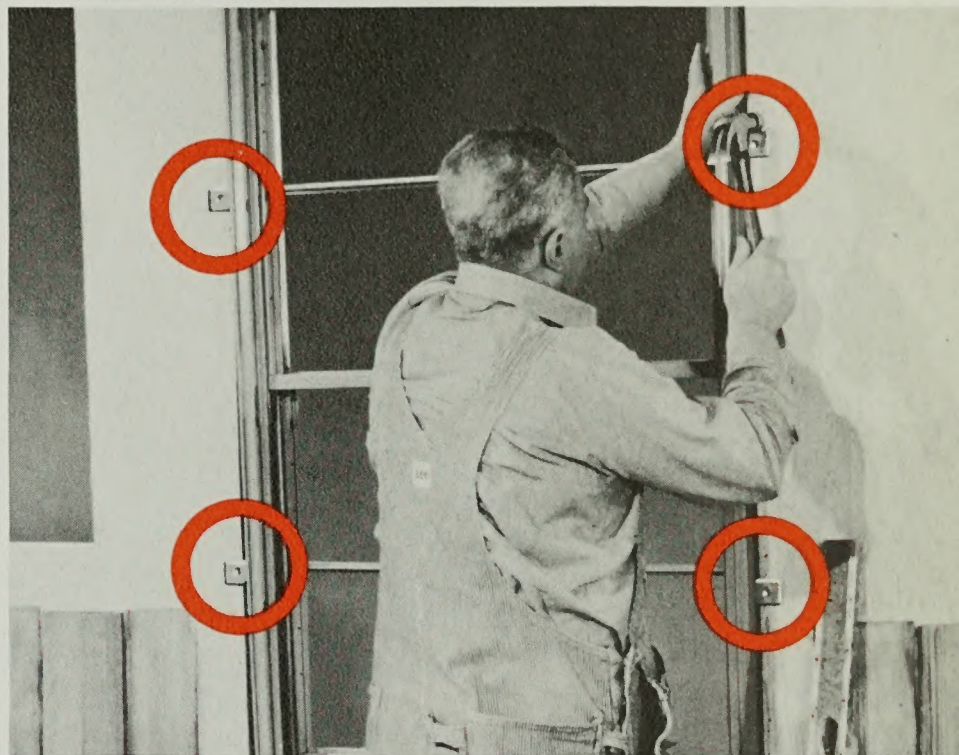
Because Truscon windows are precision built and extremely rigid, the level need be put on them at only one point—along one jamb—to check for plumb.



Step 5

Nail the window to the wall through the holes in the anchors.

Four nails—in four anchors—that's all there is to complete the installation of the Truscon window in much less time than is required with other windows of the same type. Now you're ready to finish off the wall around the window.



Step 6

Install the sill.

Step 7

Caulk the window around its *entire perimeter*. The ideal caulking space is $\frac{1}{8}$ " to $\frac{1}{4}$ ".



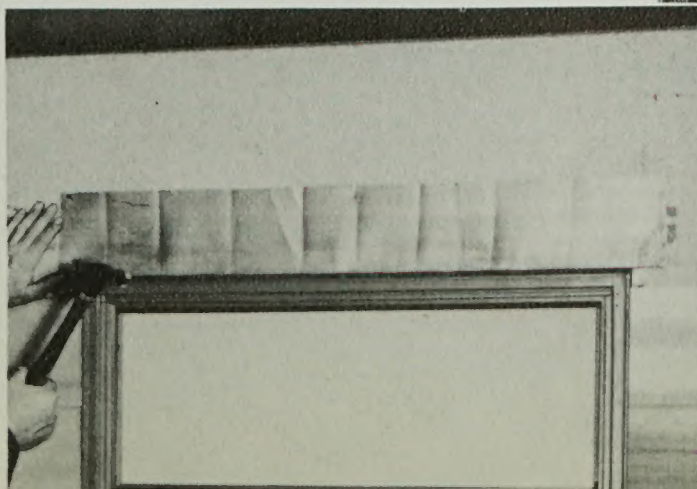
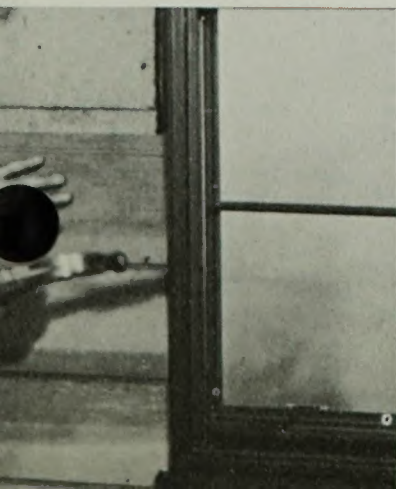
Step 8

Nail the siding in place up to the top of the window. (Truscon frame anchors hold the rebate flush with the sheathing, so whatever type of finish material is applied it will bed snugly in the mastic.)

Step 9

Install a *flashing* piece across the top of the window and overlay the siding material.

This finishes the exterior of the opening.



Installation is practically the same for both shingle and clapboard finishes in frame construction.

Basic Steps for Easy Installation of Truscon Metal Windows In FRAME CONSTRUCTION

THE INTERIOR

With the exterior of the opening finished, the window, viewed from the inside, will look like this.

Finishing the interior side of the opening requires the following simple basic steps, whichever window is used.

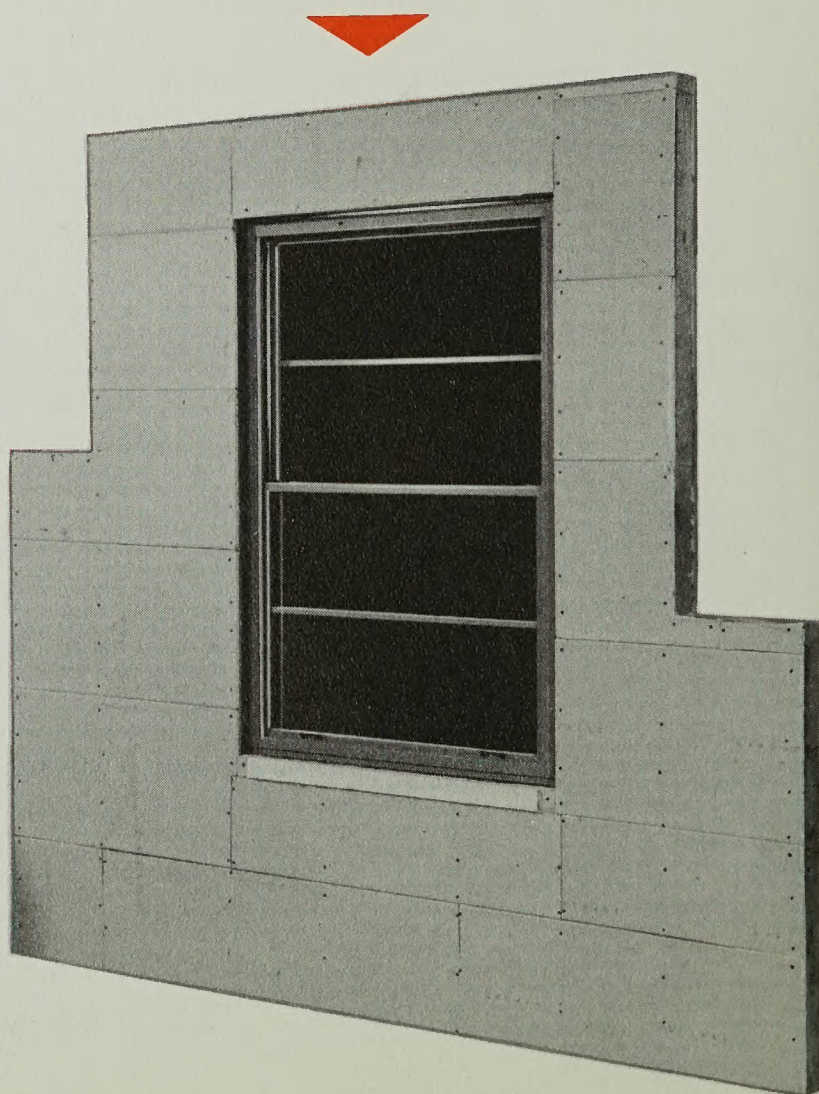
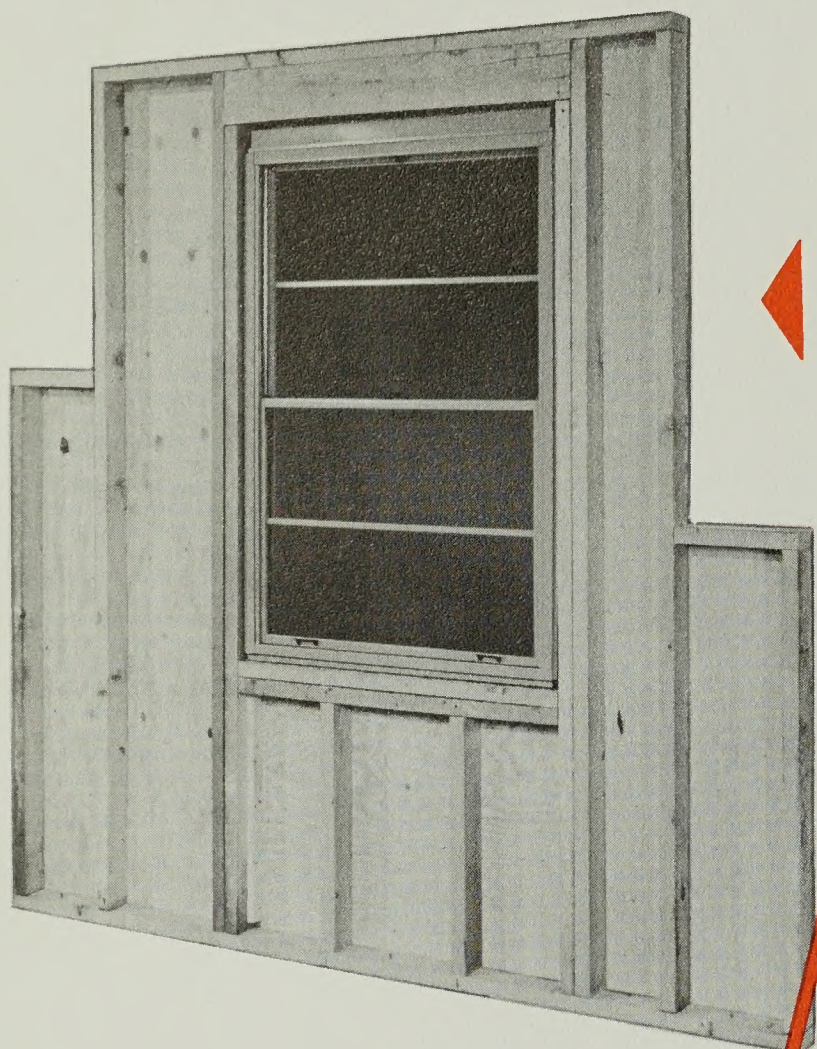
Step 1

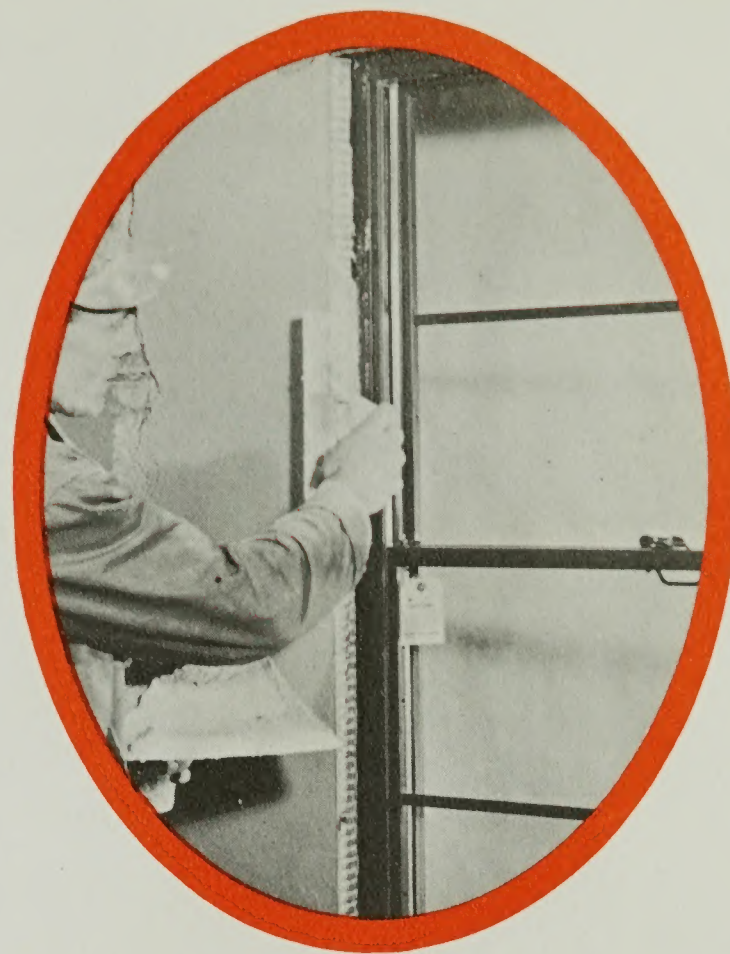
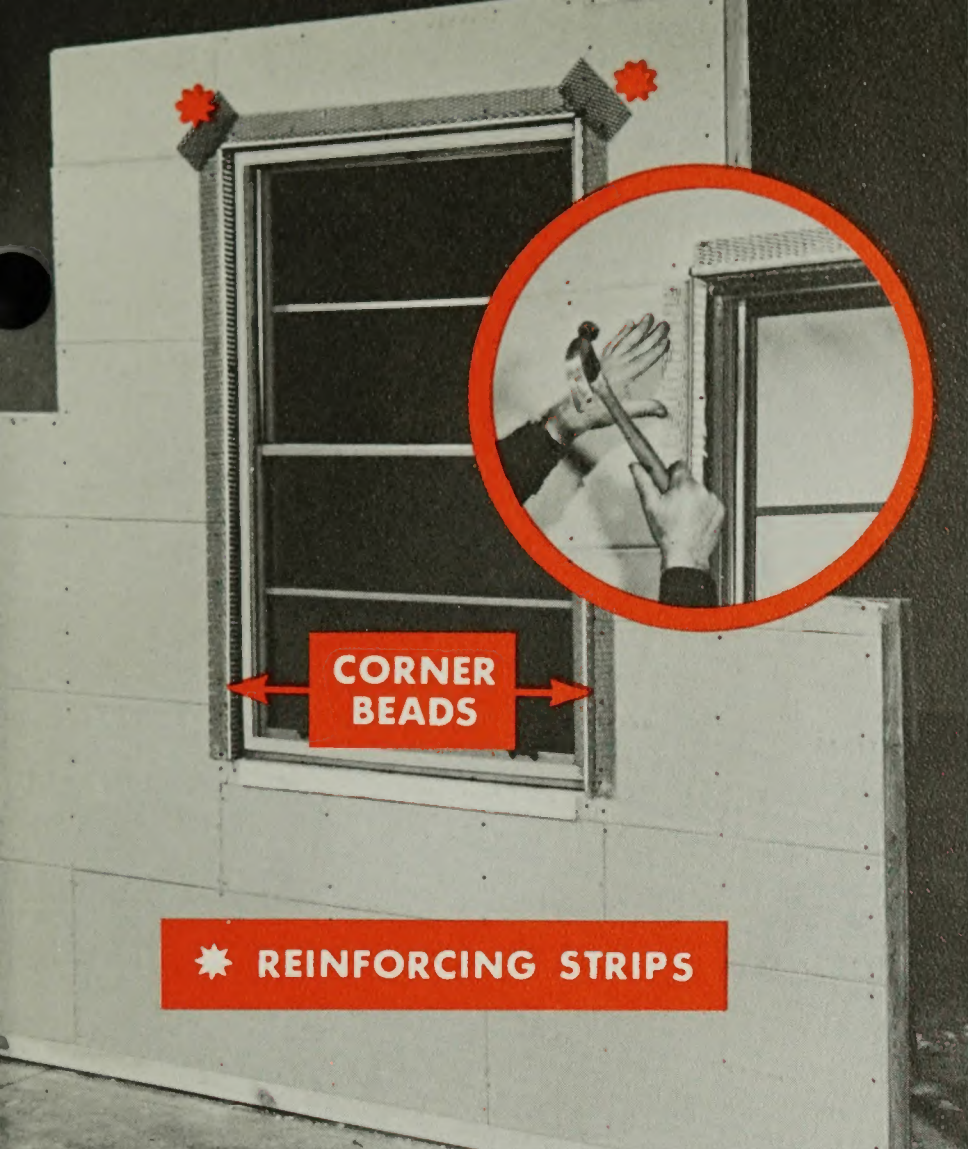
Install a blocking piece across the head of the window.

This serves as a base for nailing corner head and lath at this point.

Step 2

Put on the plasterboard or lath all around the window.





Step 3

Apply corner bead at head and jambs. Note reinforcing strips at upper corners.

Step 5

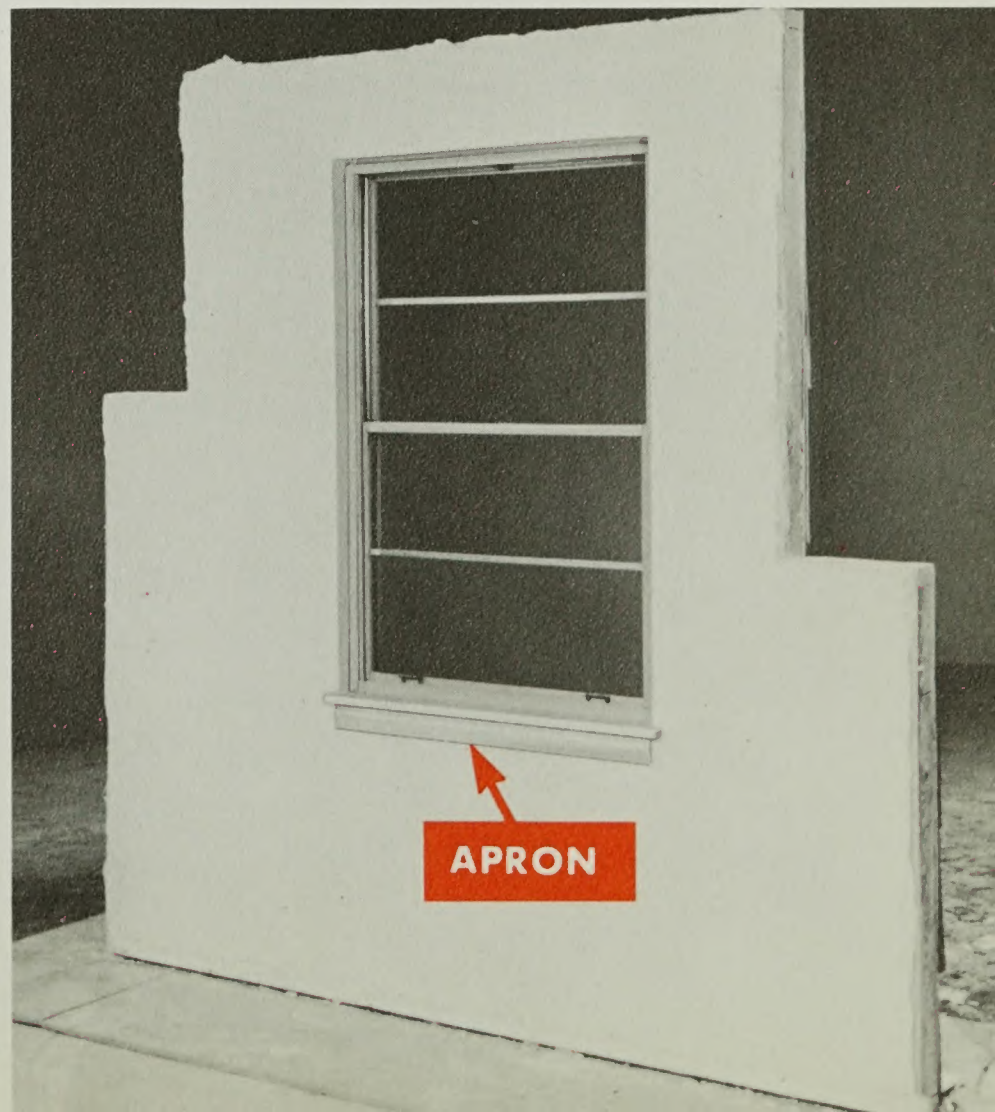
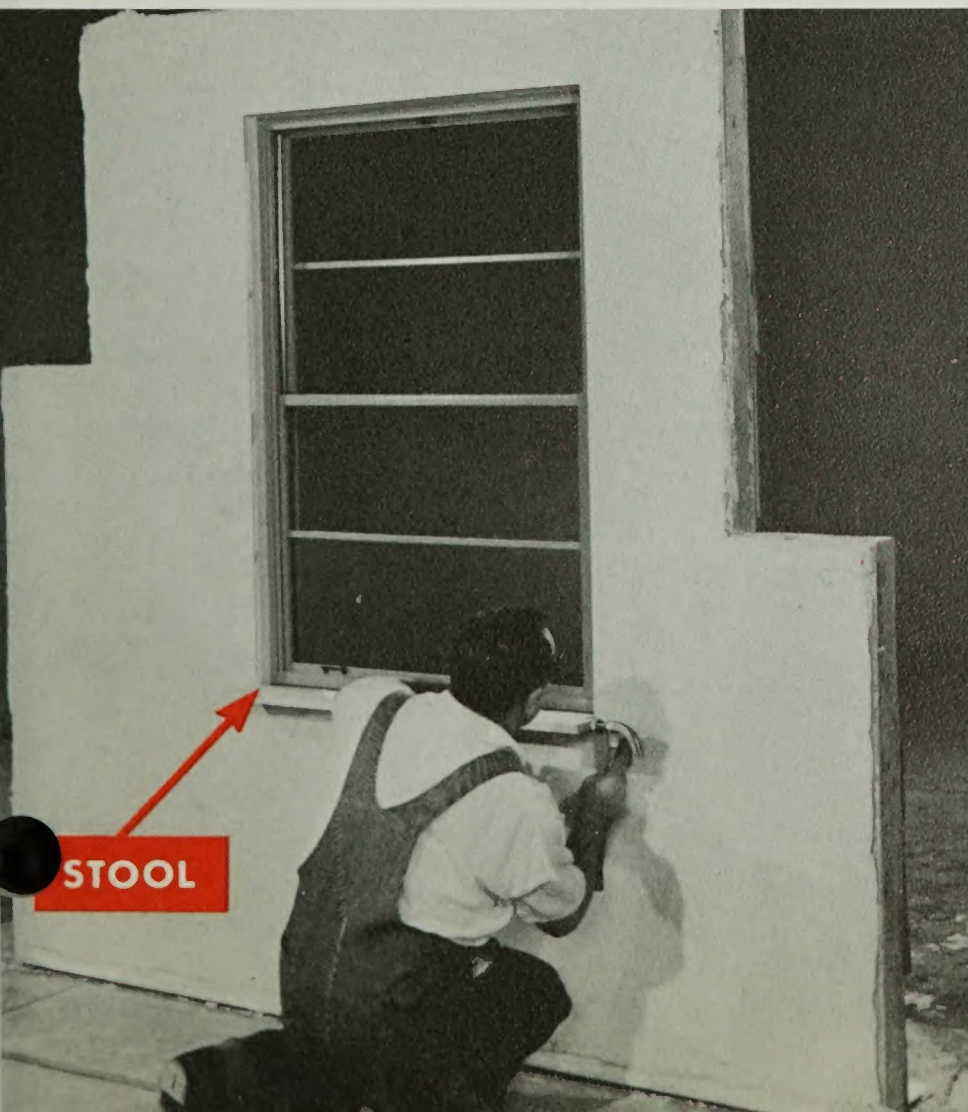
Install the stool.

Step 4

Put on the plaster.

Step 6

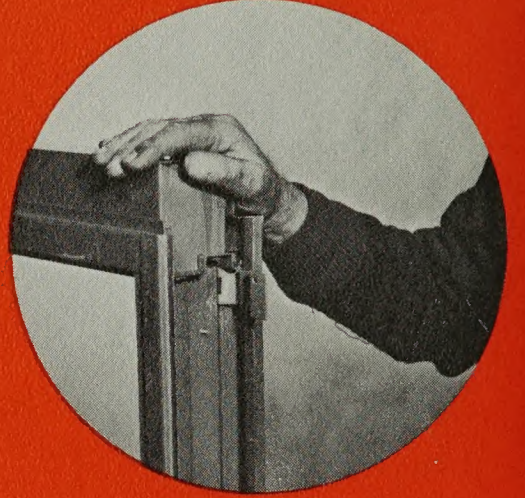
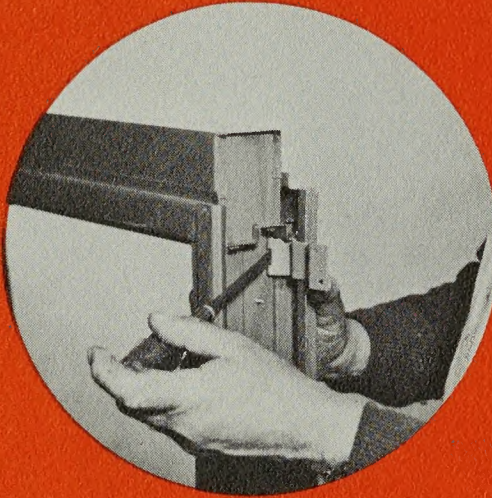
Install apron below the stool.
This finishes the interior of the window opening.



TRUSCON METAL WINDOWS

Double-Hung—Casements—Awnings—Ranch Windows—Jalousies

Basic Steps for Easy Installation in VENEER CONSTRUCTION



As far as the windows themselves are concerned, the only difference between a frame installation and a brick veneer installation is in the type of anchor used.

Step 1

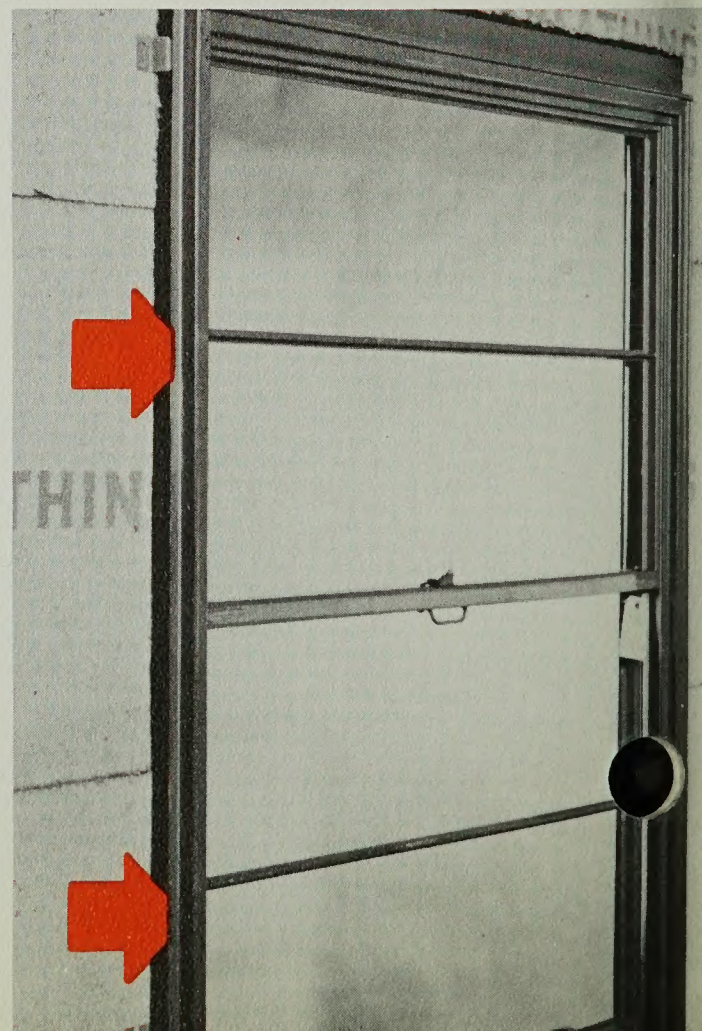
For installing double-hung windows in veneer installation, use *brick veneer anchors* as shown here. Snap them in like the anchors used for frame construction.



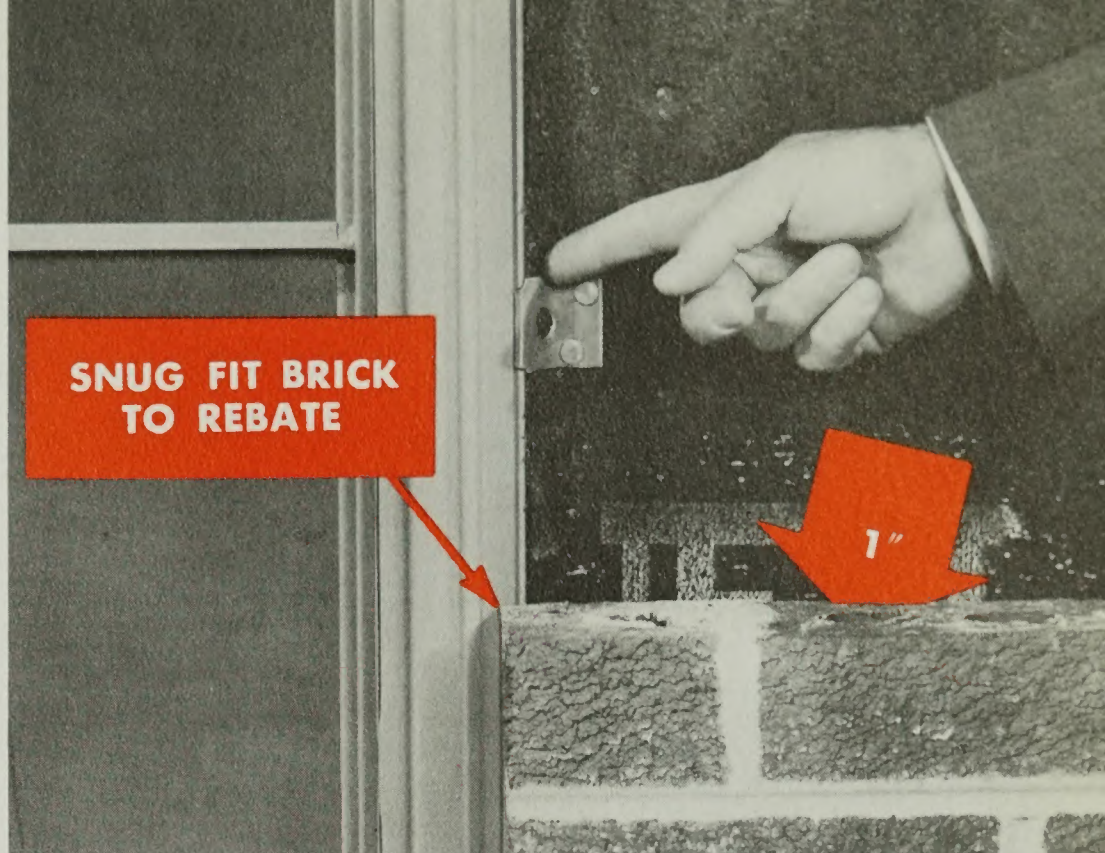
Step 2

Set the window in the opening plumb and true, and attach the window by nailing the anchors securely.

Brick veneer anchors are designed with an offset to hold the rebate away from the sheathing.



When you install brick veneer anchors, their offset design allows you to leave the required open space between the sheathing and the brick and permits the brick ends to fit snugly in the rebate.



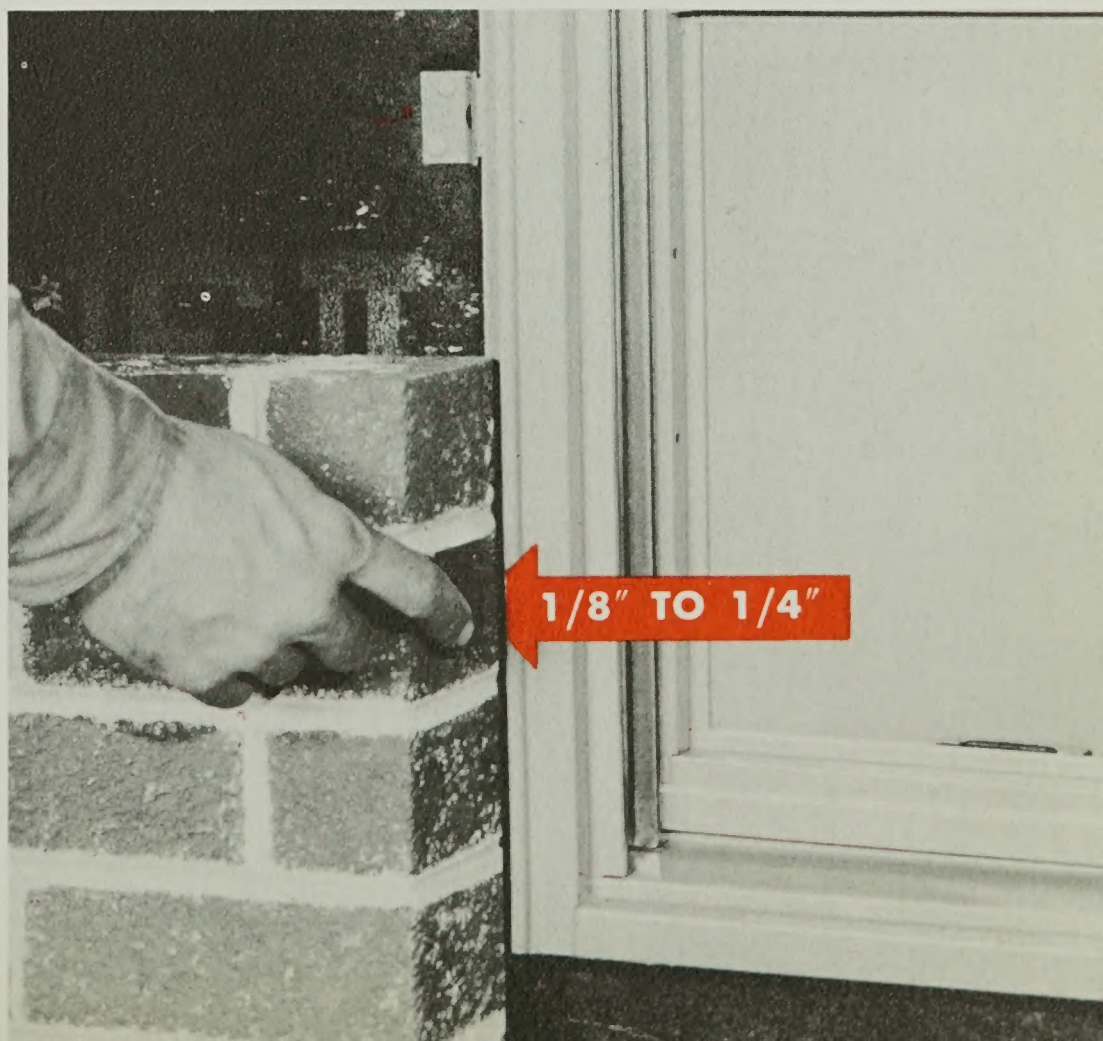
CAUTION: Do not sludge mortar into the jamb. Never fill the jamb with mortar to hold it in place. The *brick veneer anchors*, when nailed to the wall, make the jambs secure. No further application is necessary. Mortar sludged into the jamb cuts down the air space. This air space serves as insulation. Therefore, reduction of this air space reduces the insulation. In addition, cement acts as a sponge in conducting moisture from the outer to the inner wall.

For the use of fins in veneer construction see pages 18 through 27.

Step 3

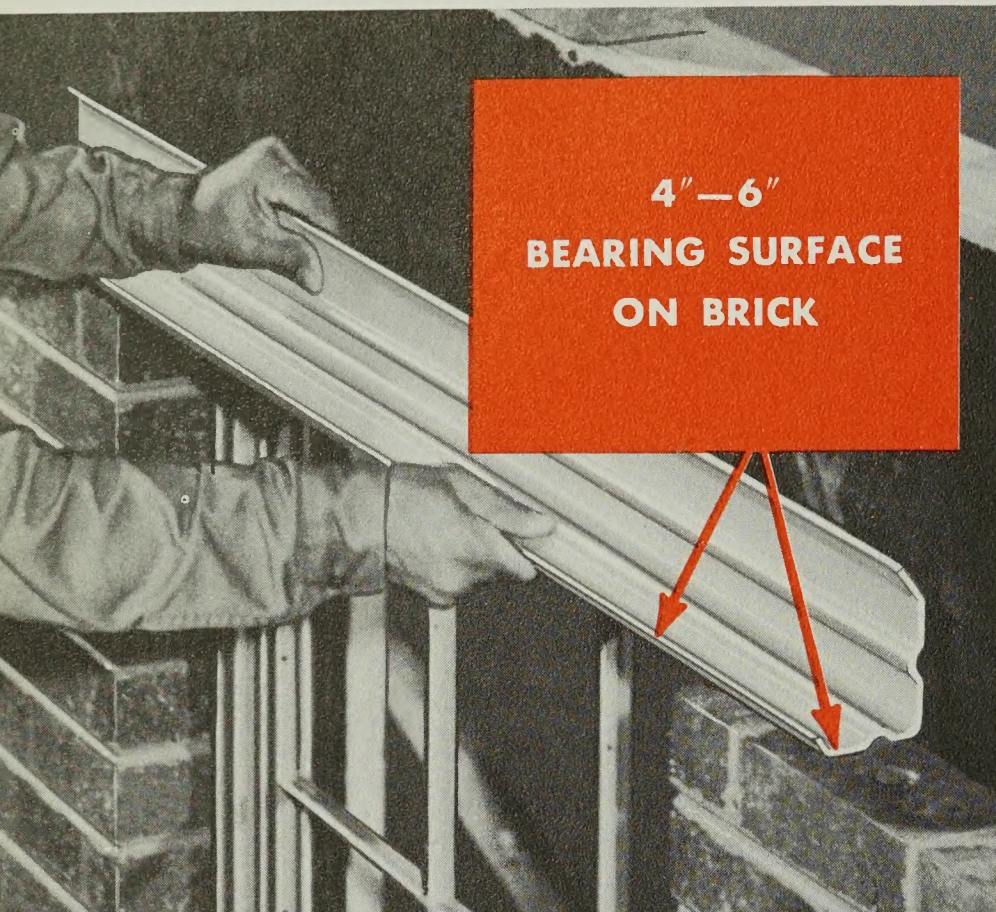
After installing anchors, lay up bricks to the tops of both jambs. Brick ends must not be crowded against the jamb.

Leave a one-eighth to quarter inch caulking space.



Basic fundamentals for veneer construction are continued on the next page...

Basic Steps for Easy Installation of Truscon Metal Windows in **VENEER CONSTRUCTION** (Continued)

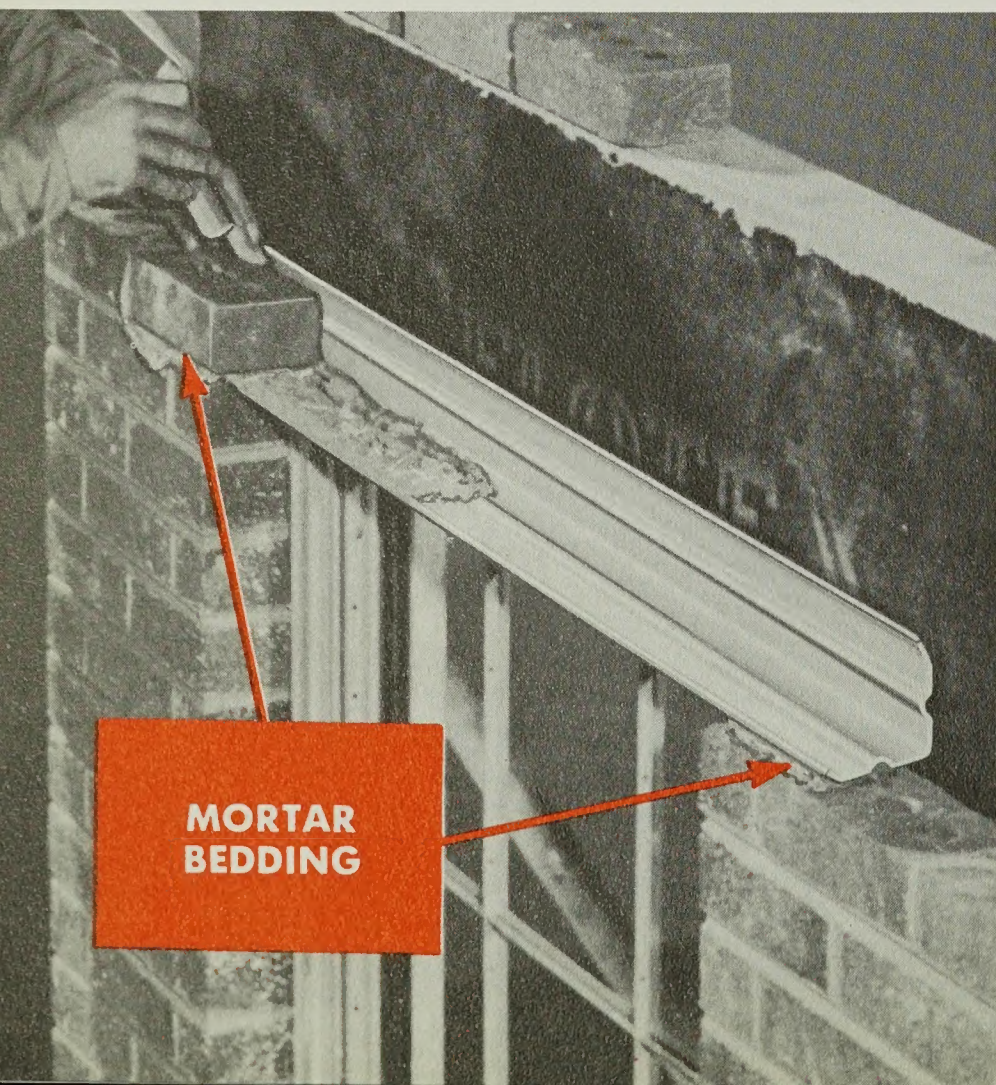


Step 4

Lay in formed steel lintel at head of window. Allow from 4" to 6" bearing surface at both ends. The purpose of the lintel is to bear the weight of the masonry above it. It must not bear down against the window. Therefore, the course of bricks, upon which the lintel will rest, must be high enough so that the lintel bar will not rest on the window at any point. The window does not carry any of the wall's weight. This is true in any type of construction where masonry is laid above the window.

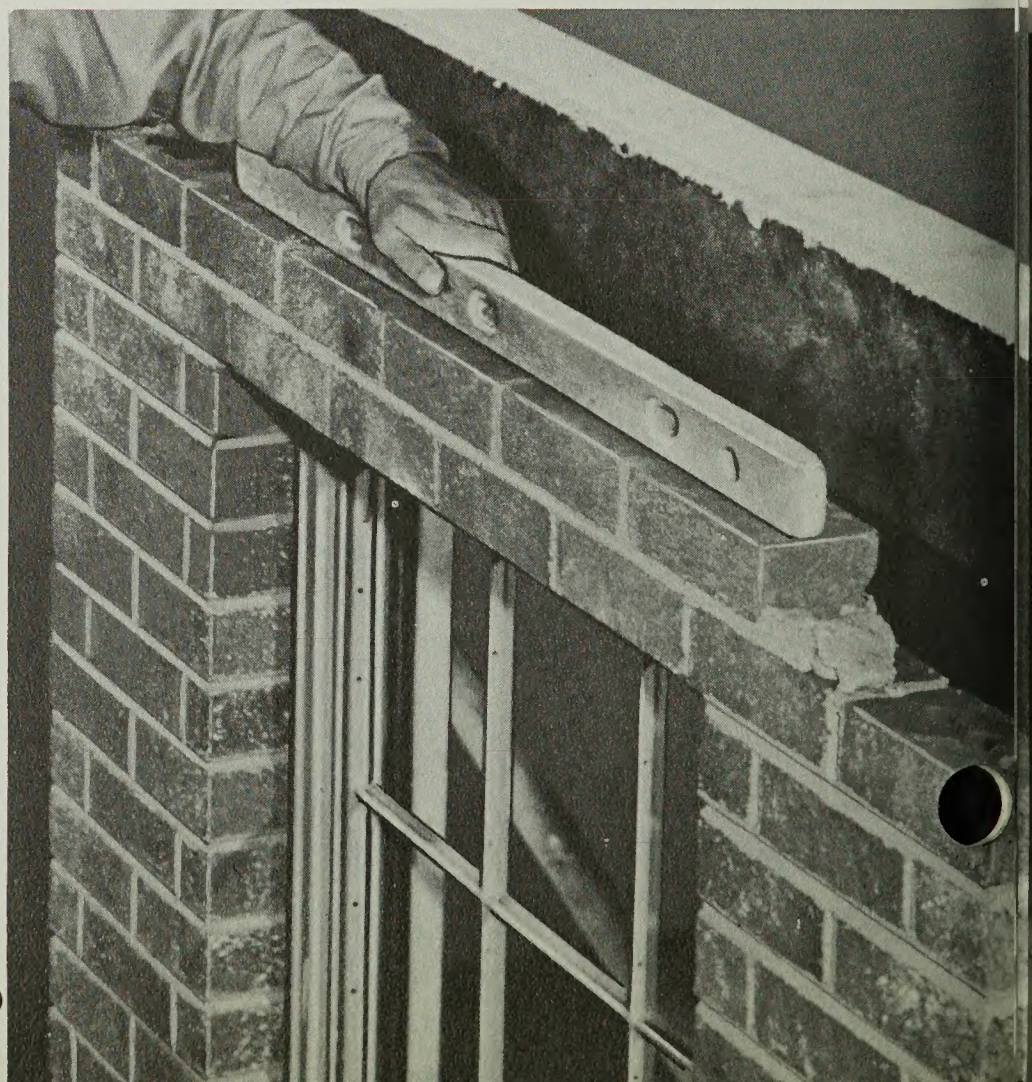
Step 5

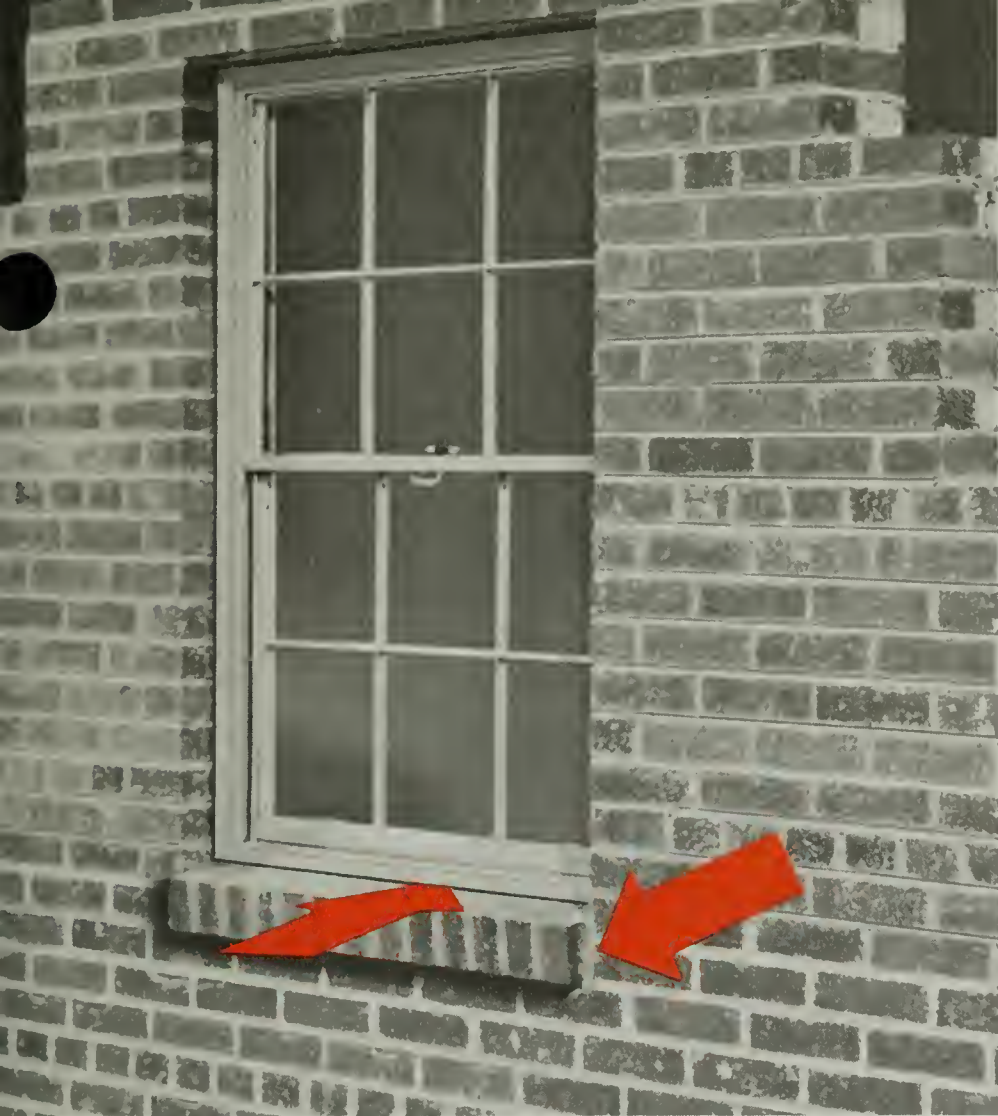
After positioning the lintel, bed it in mortar at both ends.



Step 6

Lay bricks to completely cover the lintel.





Step 7

Finish the brick veneer with a rowlock sill set in under the window.

Do not crowd the rowlock up tight against the window. Allow space for caulking.



Step 8

To finish the exterior, caulk the window around its entire perimeter.



The interior of the opening in veneer construction is finished off in the same way as it would be in frame construction. (See pages 6 and 7.)

TRUSCON METAL WINDOWS

Double-Hung—Casements—Awnings—Ranch Windows—Jalousies

Basic Steps for Easy Installation in MASONRY

WALL and CONCRETE BLOCK CONSTRUCTION

THE
EXTERIOR



FIRST ANCHORING POINT



TOP ANCHORING POINT

In residential solid masonry or concrete block construction, the wall is usually built up around the window, instead of the window being set in an opening as in frame and veneer construction.

Principal Installation Steps

Step 1

Set window in place on loose bricks, used to block it up to its correct height.

Step 2

Brace the window at the top in a plumb and true position. Be sure the window is plumb and true, and securely braced, before any bricks or blocks are laid up alongside it.

This is a crucial point in the installation.

Step 3

For installing the double-hung 138, as shown here, lay bricks or blocks up to the first anchoring point at the lower part of the jambs. Do *not* crowd the bricks or blocks against the jambs. Allow one-eighth to a quarter inch caulking space.

Step 4

Insert the specially designed flat anchors at the bottom point in each jamb, and bed them into the mortar between courses. In masonry or concrete block construction, this is done *after* the wall has been laid up to the anchoring points.

Truscon flat anchors for use in masonry are designed so they slip quickly and easily into the jamb. Yet they hold it tightly and securely when the mortar has set. Do *not* sludge mortar into the jambs. *The anchors hold the window in place.*

Step 5

Continue laying up bricks or blocks to the top anchoring point.

Step 6

Slip the top anchors into each jamb and bed them in the mortar between the courses. (Sometimes, in taller windows, a third anchor is installed in each jamb, about half way up.)

NOTE: Fins must always be used to install casements in concrete block construction. See page 22. For use of fins in masonry and concrete block construction, see page 18, and pages 19 through 27.

Step 7

Lay a formed steel lintel over the top of the window to bear the masonry above.

Step 8

Bed the lintel in mortar at both ends.



Step 9

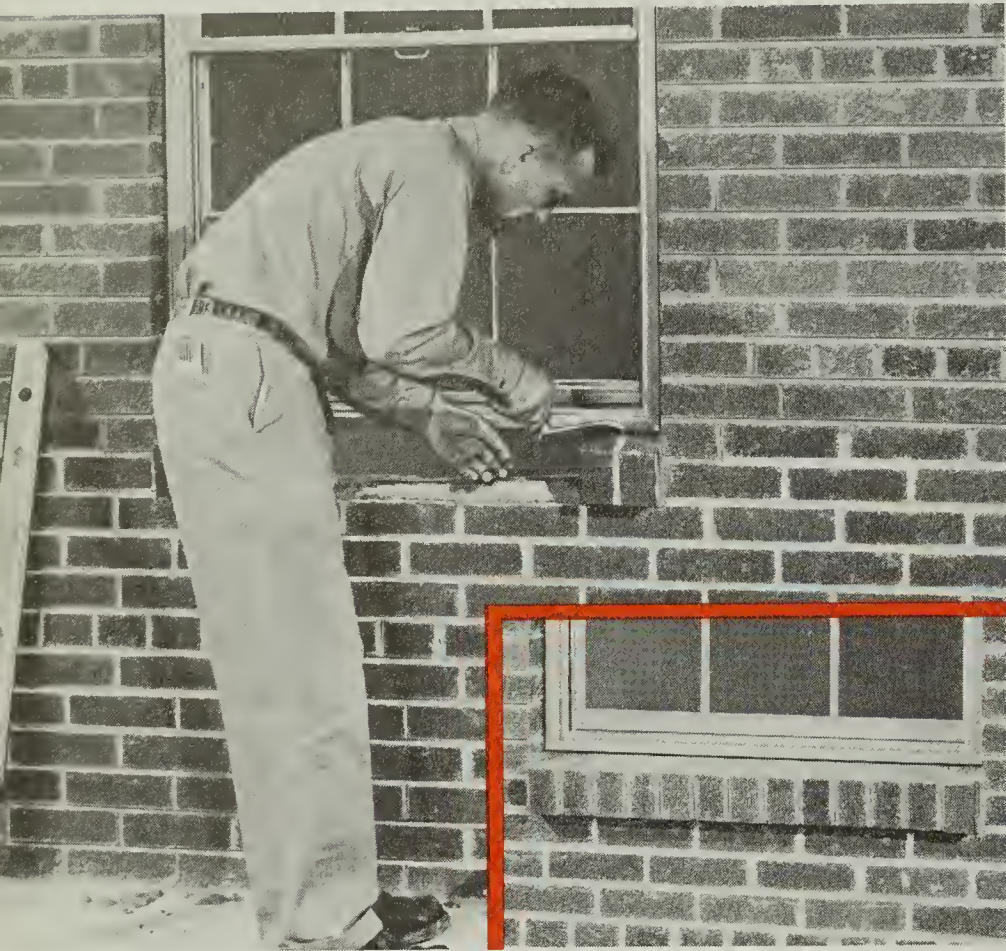
Lay courses of brick or concrete block to completely cover the lintel.

At this point in masonry or concrete block construction, the wall has been built up around the window. The exterior now looks like this.

Basic fundamentals for installation in masonry or concrete block construction are continued on the next page.



Basic Steps for Easy Installation of Truscon Metal Windows In MASONRY WALL or CONCRETE BLOCK CONSTRUCTION



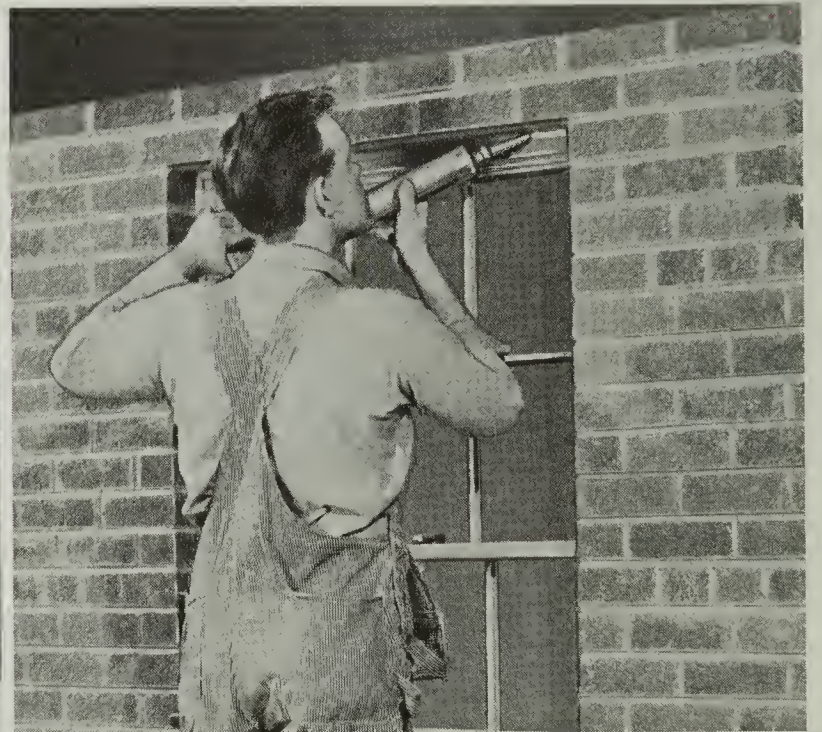
THE EXTERIOR

(Continued)

Step 10

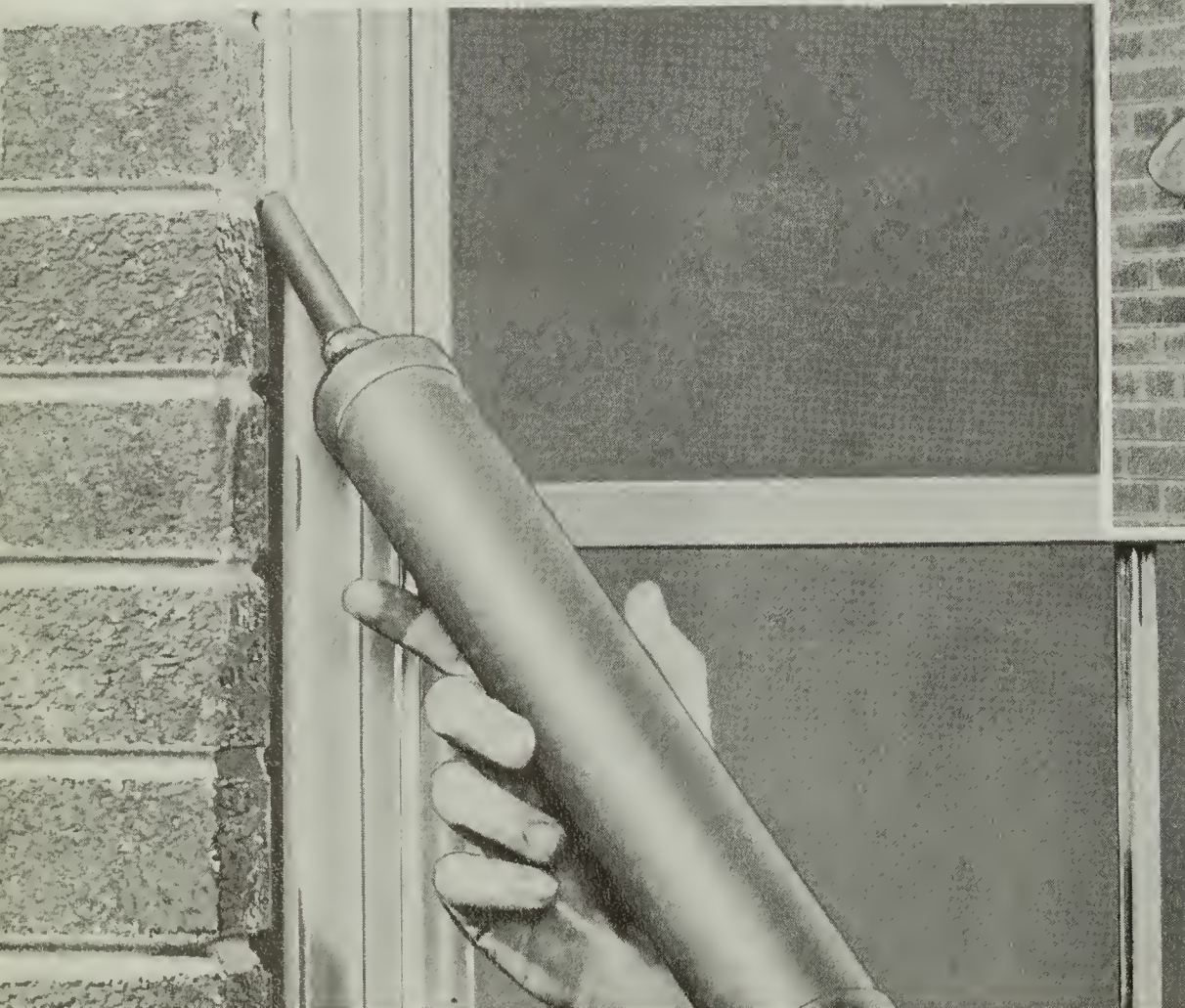
Set a rowlock sill under the window. Be sure the bricks or concrete blocks do not crowd the window.

The wall is now ready for the final step in finishing the exterior of the opening.



Step 11

Caulk the window around its entire perimeter.





Step 12

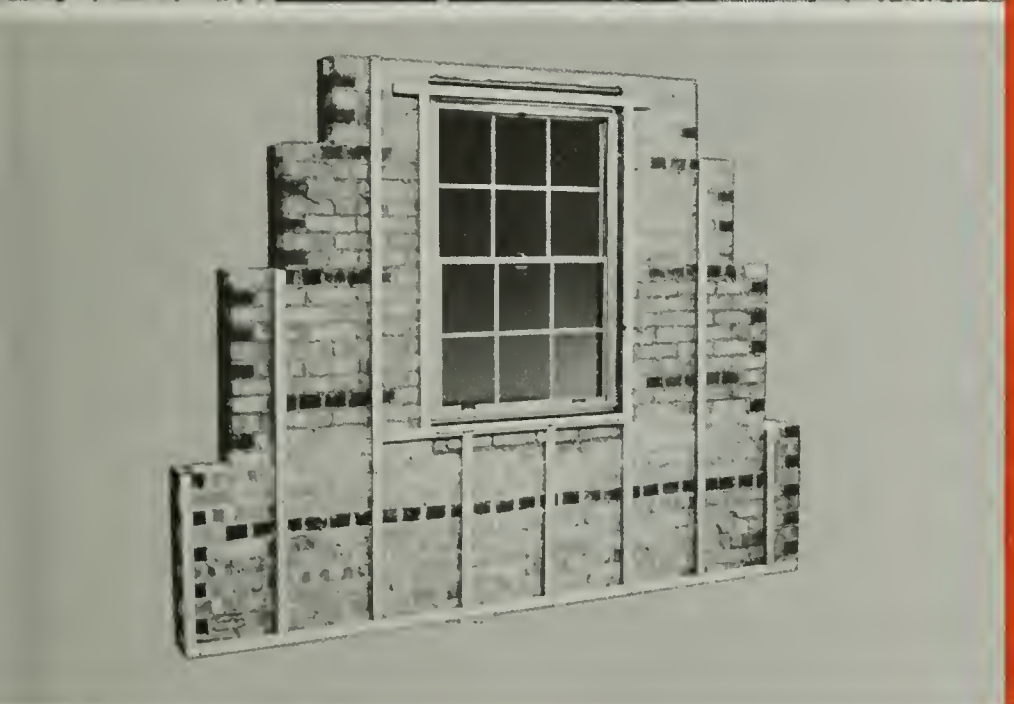
Install an *inside* lintel in solid masonry walls and in concrete block, to bear the weight of the inner masonry.



With the inside lintel installed, the window looks like this from the inside.

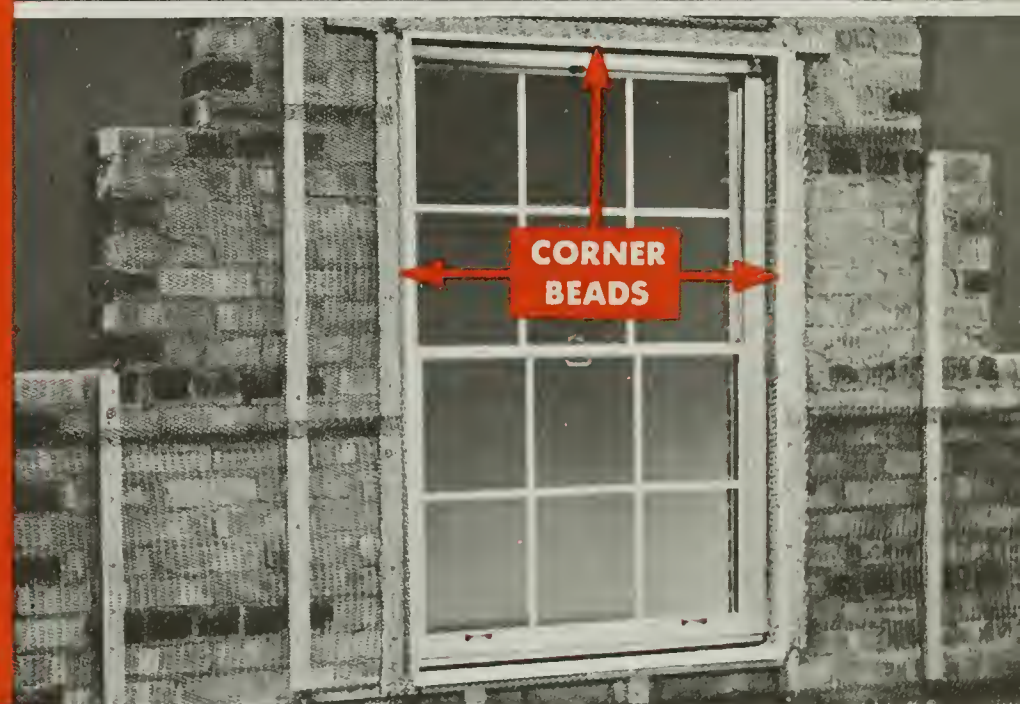
At this point, the actual installation of the window itself is complete.

The rest of the job is to finish the interior with lath and plaster. Here are the basic steps:



Step 13

Put furring strips on the wall.



Step 14

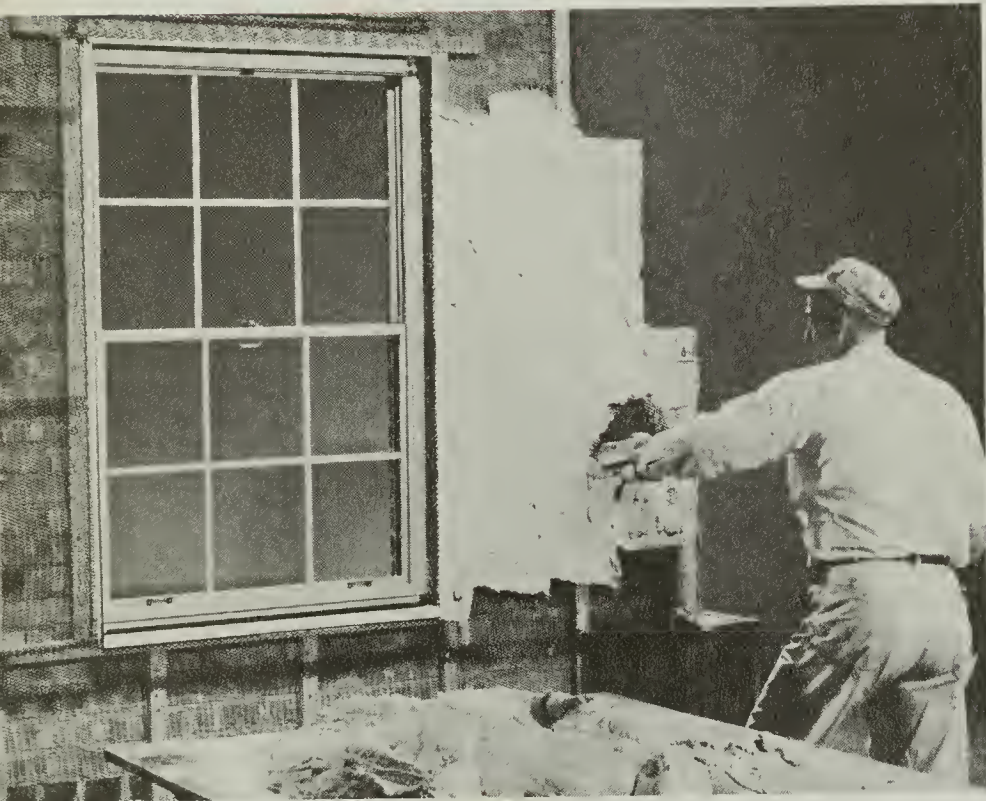
Attach lath to the furring strips and apply corner bead at head and jambs.

Basic fundamentals for installation in masonry or concrete block construction are continued on the next page.

Basic Steps for Easy Installation of Truscon Metal Windows In MASONRY WALL or CONCRETE BLOCK CONSTRUCTION

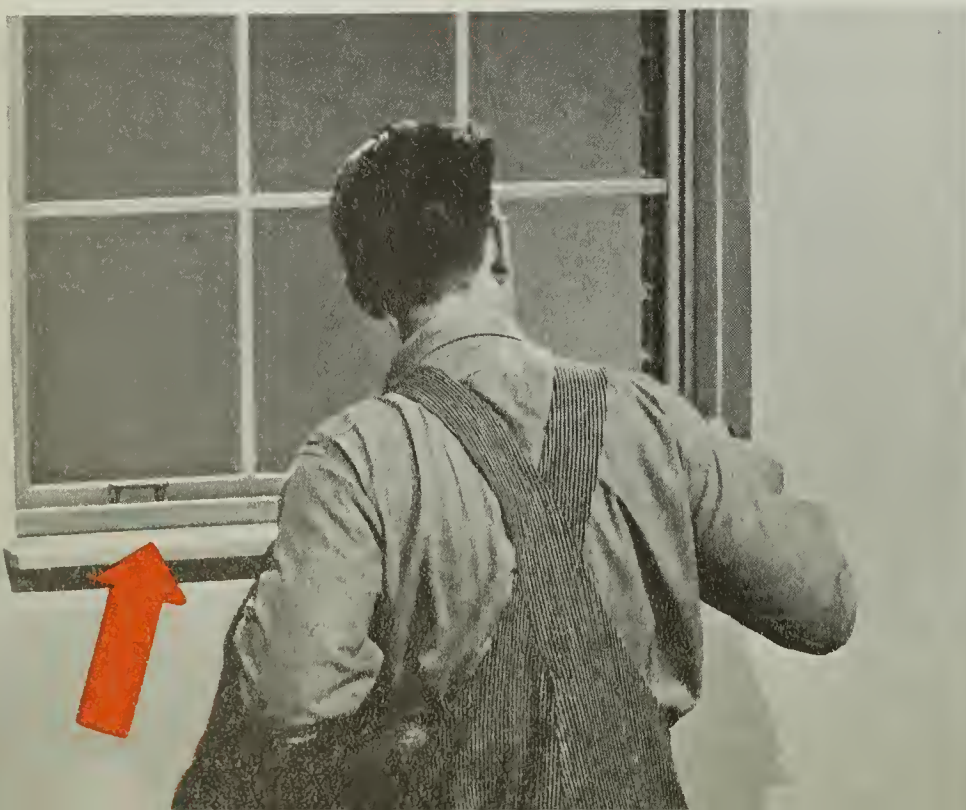
THE INTERIOR

(Continued)

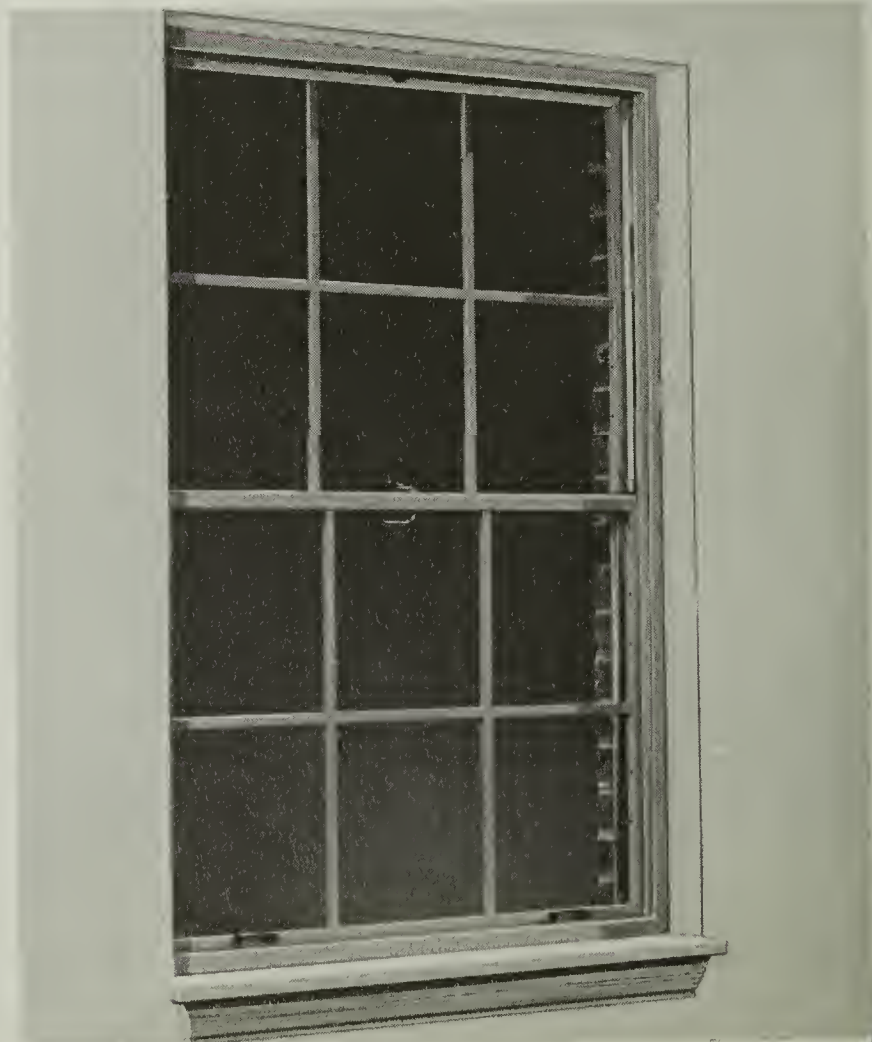


Step 15 Put on the plaster.

Step 16 Install the stool.



Step 17 Install the apron below the stool.



This is how the window looks with
the interior construction finished.



Customarily, a brick or concrete block wall is laid up around the window.

Another method is sometimes used...



The masonry opening is pre-built and the window is installed later.

Install the window from the inside.



2 Pre-attach snap-in anchors to the window—just as in frame and brick-veneer construction.



Set the window in the pre-built opening.



4 Attach the window by nailing through anchors to the masonry alongside the *interior* jambs of the opening.

Use of FINS

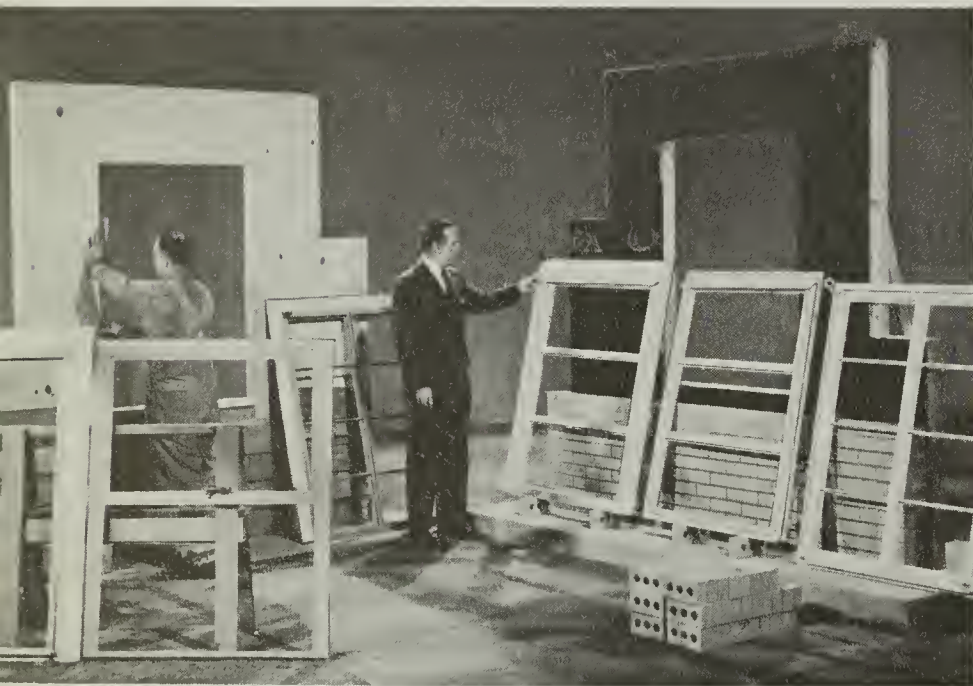
for Installation of Truscon Metal Windows

Truscon casements, awnings, ranch windows and jalousies are customarily installed with fins of some type, attached to the jambs and head to provide additional anchorage. The important consideration is to select the correct type of fin for the type of construction.

TYPE OF FIN	CONSTRUCTION			
	FRAME	BRICK VENEER	SOLID MASONRY	CONCRETE BLOCK**
Jamb Fins for 138 Double-Hung (see below)	✓	✓		
Wood Fins*	✓	✓		
Metal Fins (Standard)*		✓	✓	
Metal Fins (Narrow)*				✓
Aluminum Fin Trim for Aluminum Casements	✓	✓		
Complete Steel Trim* for Steel Casements and Ranch Windows	✓	✓	✓	✓
Steel Casings	✓	✓	✓	✓

*Attached bottom anchors are screwed into the window and are used with wood or metal fins except in frame construction.

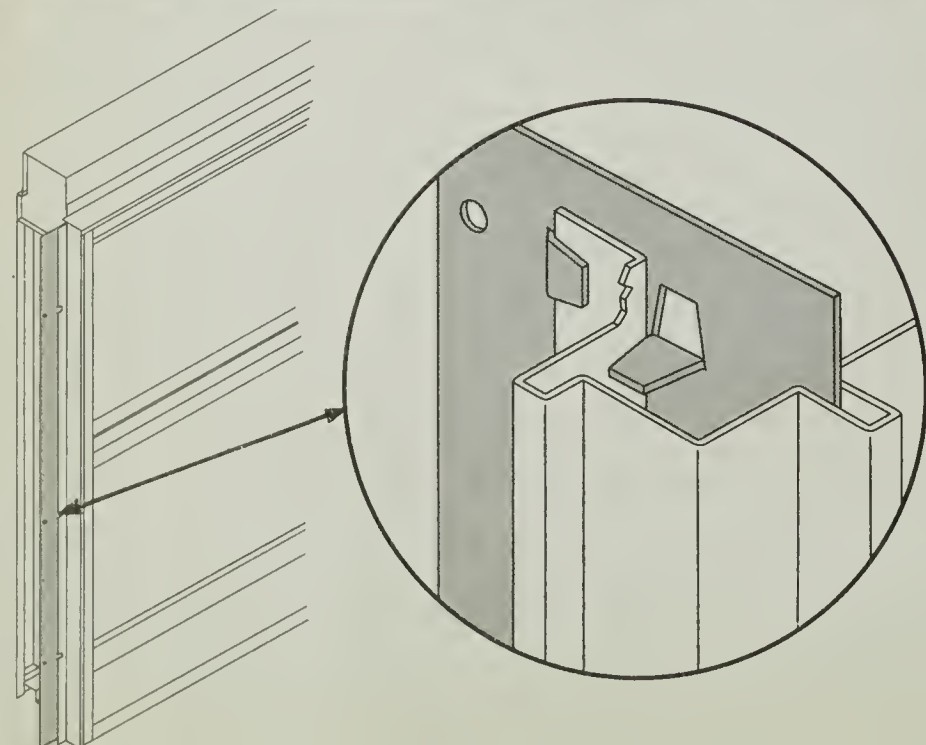
**Use standard width fins in all types of construction except concrete block.



Regardless of which fin or combination fin and trim is used, the various types of Truscon metal windows go into the same opening the same way. The fundamentals of fin installation, shown on the following pages, apply to all the windows.

Here's All There Is To It

- Set the window in
- Plumb it
- True it
- Nail fins and anchors to framing



Jam Fins for 138 Double-Hung

These fins lock to the window by means of bent-down lugs which may be depressed by a screwdriver or some similar tool. This locks the fin to the outer leg of the window.

Attachment of these jamb fins is just as simple as attaching anchors, but they provide a continuous bearing surface into brick veneer or frame construction.

Attach them to the wall by driving common nails into the block, or stud frame.

WOOD FINS

for Frame Construction

Truscon casements, awnings, ranch windows, or jalousies, all go into this same type opening in the manner described below.

INSTALLATION STEPS

Step 1

Check opening for trueness.

Step 2

Attach wood fin to window.

Step 3

Set window, to which the wood fin has been attached, in opening. →

Wood fins can be attached to the framing first, and then the windows can be screwed to the fins. This method demands extra accuracy to make sure the window is not bowed out of shape . . . and that it is tight.

Step 4

Nail the fins to the framing and plumb the window while nailing.

Step 5

Finish the bottom under the window. This can be done in one of the two basic ways described below.

One method is to install a wood sill. Slip the sill up in under the window. →

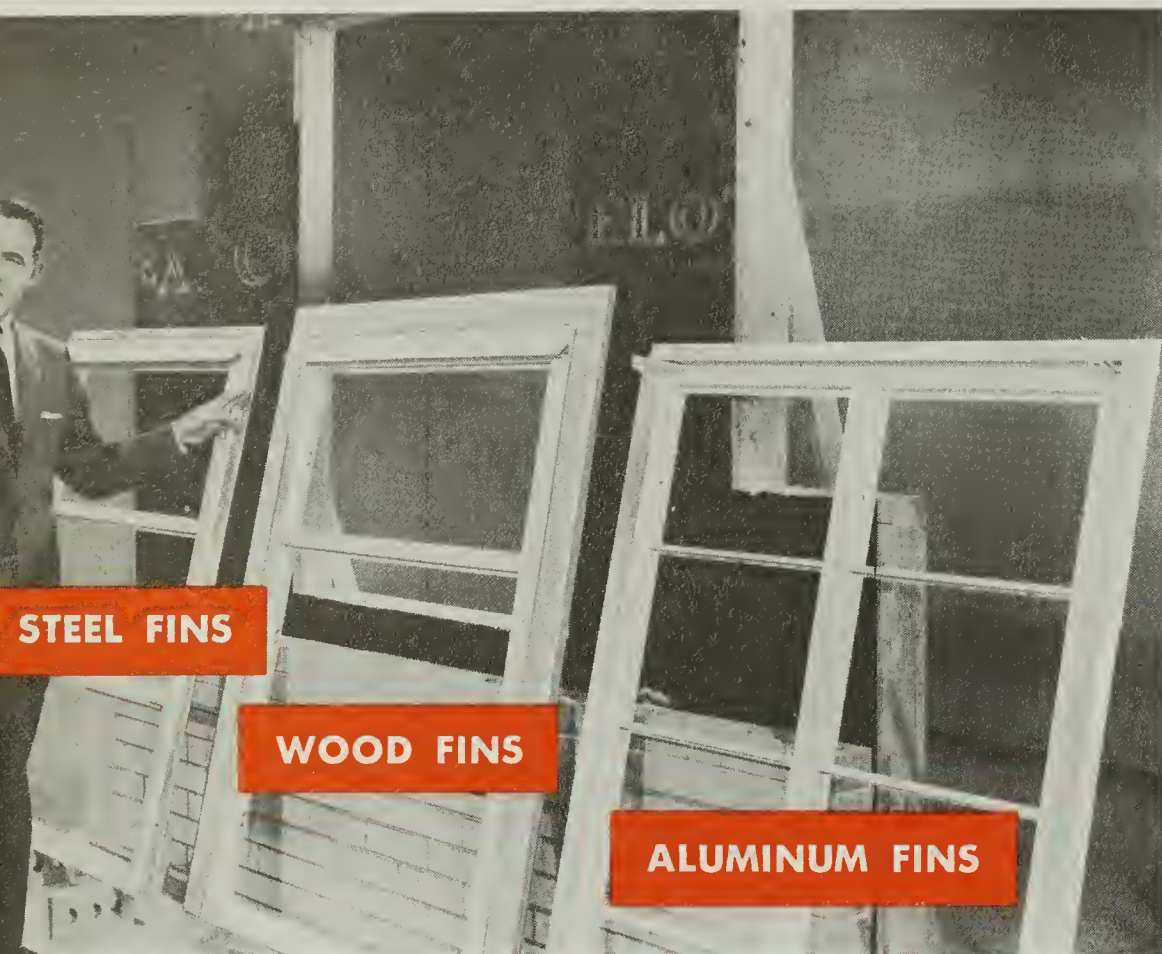
Another method is to put in a blocking piece as shown here. →

In either of the two methods described above, screw the window sill bar to the wood to complete the installation.

Take care not to bow the bar!



METAL or WOOD FINS in BRICK VENEER CONSTRUCTION



Metal fins are generally used for installing Truscon metal windows in brick veneer construction.

In some cases, however, wood fins are used in brick veneer construction.

Installation for both metal and wood fins is the same.



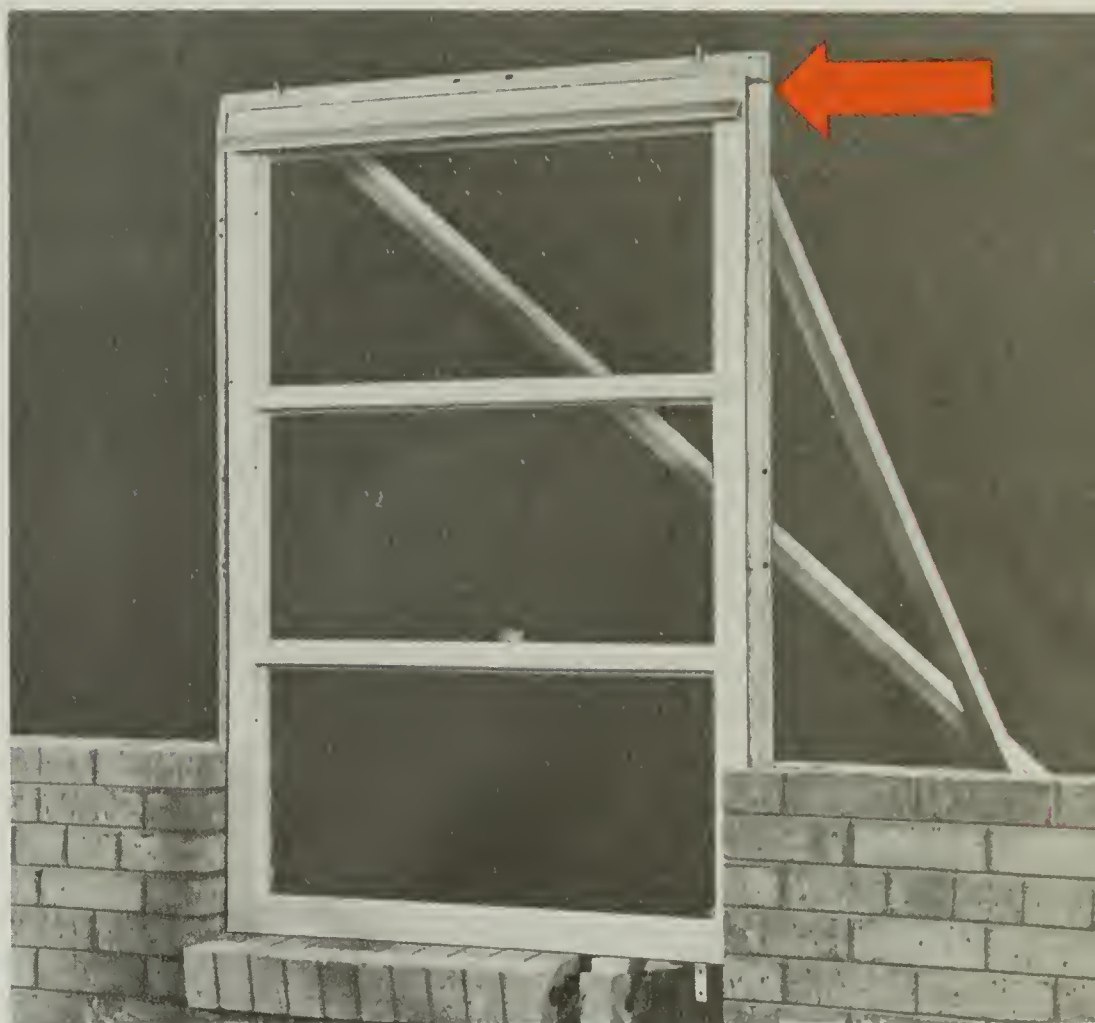
When wood fins are used in brick veneer construction, attach the bottom anchors.

Use these bottom anchors for nailing to the framing behind the rowlock sill, since there is no wood sill or blocking piece to which to screw the bottom bar of the window.

METAL FINS in SOLID BRICK CONSTRUCTION

Metal fins used in solid brick, and the bottom anchors used are the same as used in brick veneer.

This can be standard fin, as shown here, or two-in-one fin trim*.



Bed the fin in the mortar between the outer and inner walls as they are built up alongside it.

Leave caulking space.

Do not crowd the masonry against the window.



Embed the attached bottom anchor, or the fin trim sill piece, as the case may be, in the mortar behind the rowlock when it is laid in.

*See page 23 for aluminum fin trim.
*See page 24 for complete steel trim.
*See page 26 for steel casings.

METAL FINS in CONCRETE BLOCK

Standard width fins, used in all other frame, brick veneer, and masonry construction, are too wide for use in concrete block.

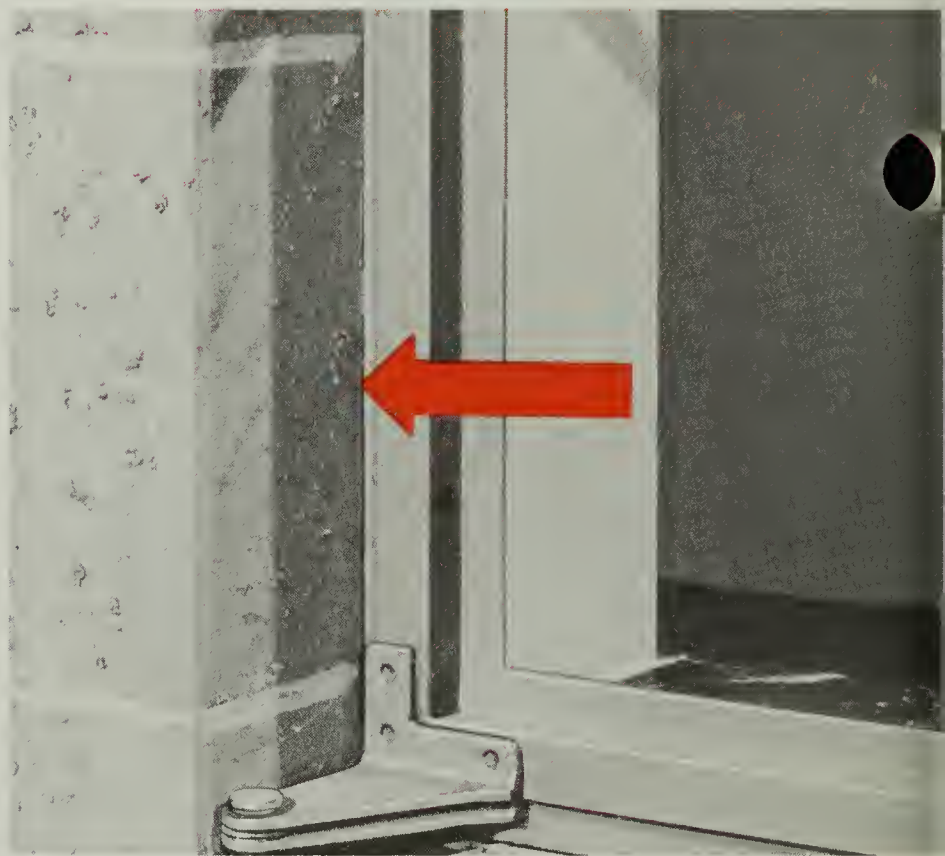
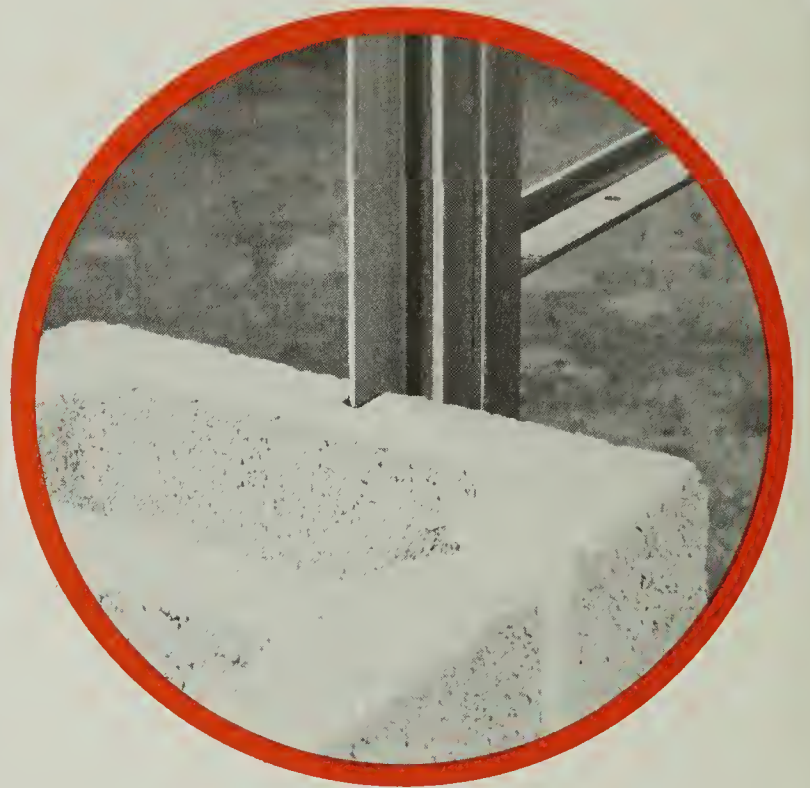
Use a *narrower fin* that fits into the shallow groove in the concrete block.

This groove demands a *narrow fin*, specifically designed to fit into the slot *without crowding*.

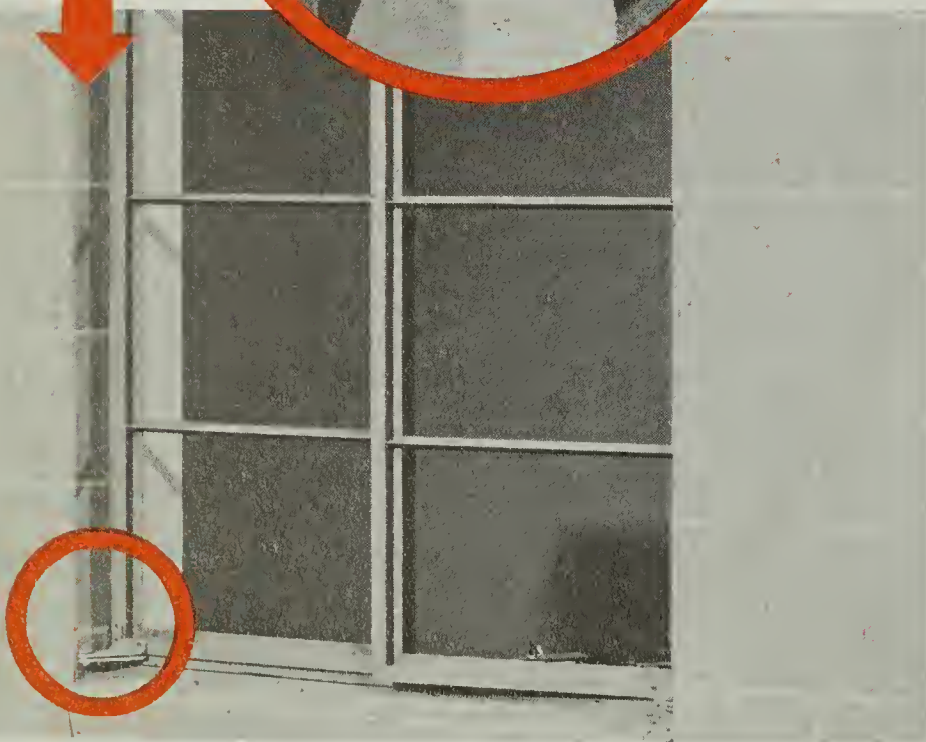
NEVER BURY THE FLANGE OF THE FRAME IN THE BLOCK!

When the flange of the frame is buried in the block, there's not enough clearance for the hinge.

The vent will be *hinge-bound*.



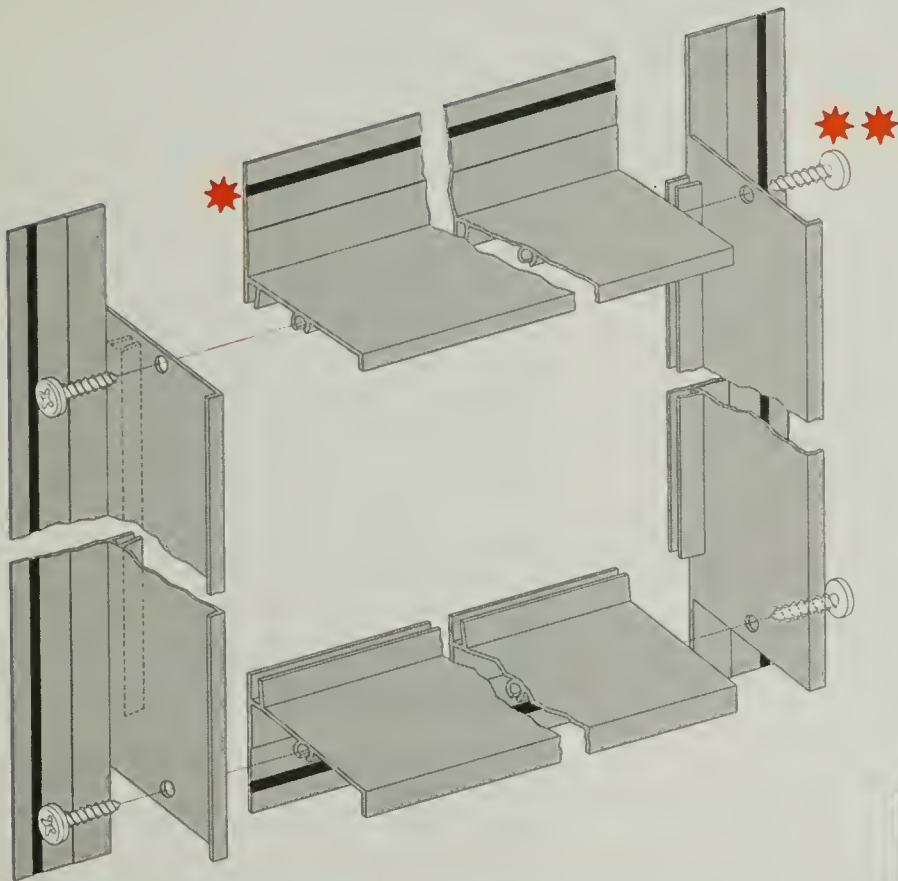
With the flange buried in the block no space is left for caulking.



The above faulty conditions are important reasons why fins must *always* be used to install casements in concrete block.

ALUMINUM FIN TRIM

for Installation of Truscon Aluminum Casements in Frame and Brick Veneer Construction



Truscon aluminum fin trim is a quick slip-on fin—plus—trim, all the way around. In frame construction it eliminates the need of outside wood trim. This fin trim has a sill fin instead of bottom anchors.

Here's All There Is To The Installation

- Attach the fin trim to the window by fitting it over the outer flange of the frame.
- Fasten it with one self-tapping screw at each corner.
- Nail it in place. A nailing groove permits easy nailing.

In frame construction . . . depth of the trim is ample for butting siding or shingles.

In veneer construction . . . depth of trim allows a full 1" air space between sheathing and brick.

The built-in trim dresses up the appearance of the opening.

It saves the expense of applying trim.

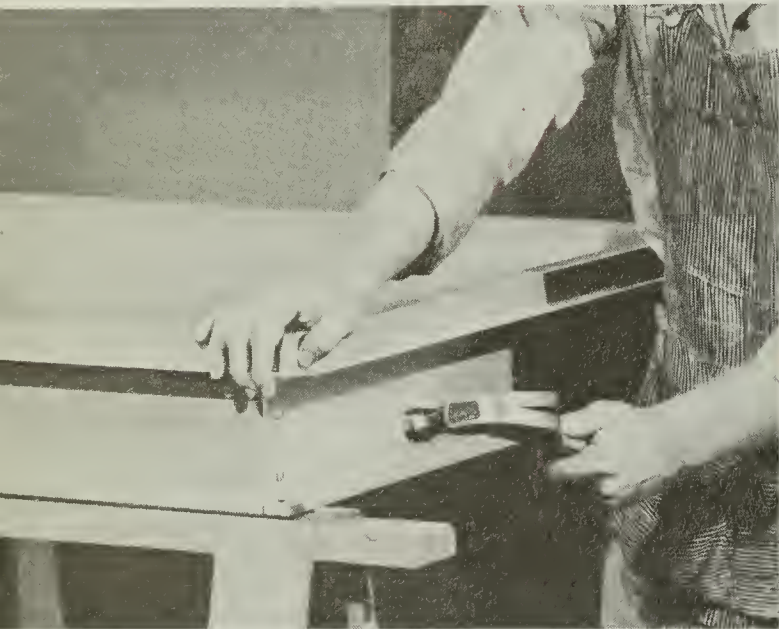


Truscon COMPLETE STEEL TRIM

for Framing Casements and Ranch Windows

TRIMMING
THE
EXTERIOR
OPENING

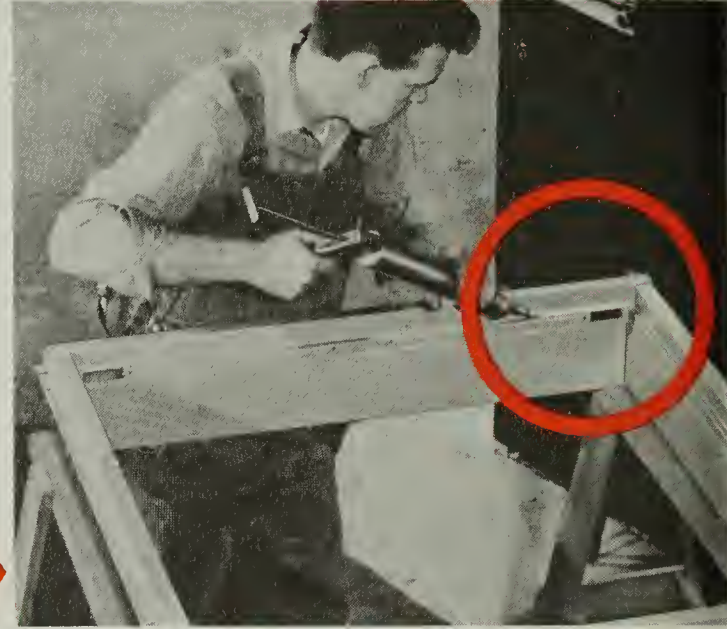
Here's How to Erect a **Complete Window**
Opening at One Time with **Inside-Outside Trim**



Step 1

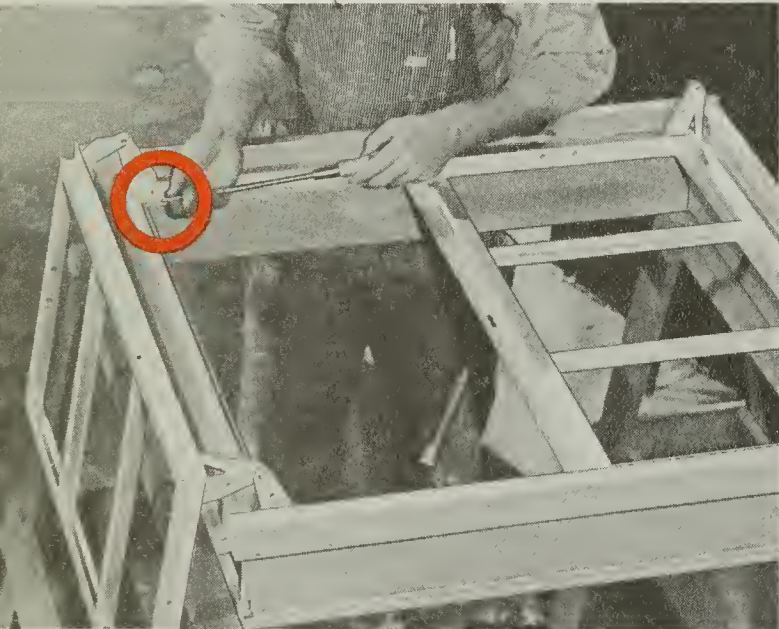
Assemble the complete steel trim. The pieces, shipped knocked-down, are precision-formed with mortise and tenon corners.

Put them together and peen the tenons securely.



Step 2

Caulk all the way around the unit where the window will set in.



Step 3

Lay in the window and fasten it to the trim with self-tapping screws.

Step 4

Put the window and the complete steel trim in the wall, and nail the trim to the studding.



The outer leg or flange forms a built-in fin *all the way around*. It's factory-punched for nailing. It's narrow enough for the slot in concrete block.



Truscon complete steel trim goes into any type of construction, including masonry, the same way, and just as easily, as a window with fins only.

Its design provides an ideal mold for any type of material to finish against.



Step 5

Attach the simple anchors.

Step 6

Nail the anchors in place to hold the trim firmly in place.

The special offset design of Truscon complete steel trim offers important advantages for finishing the inside wall.

Step 7

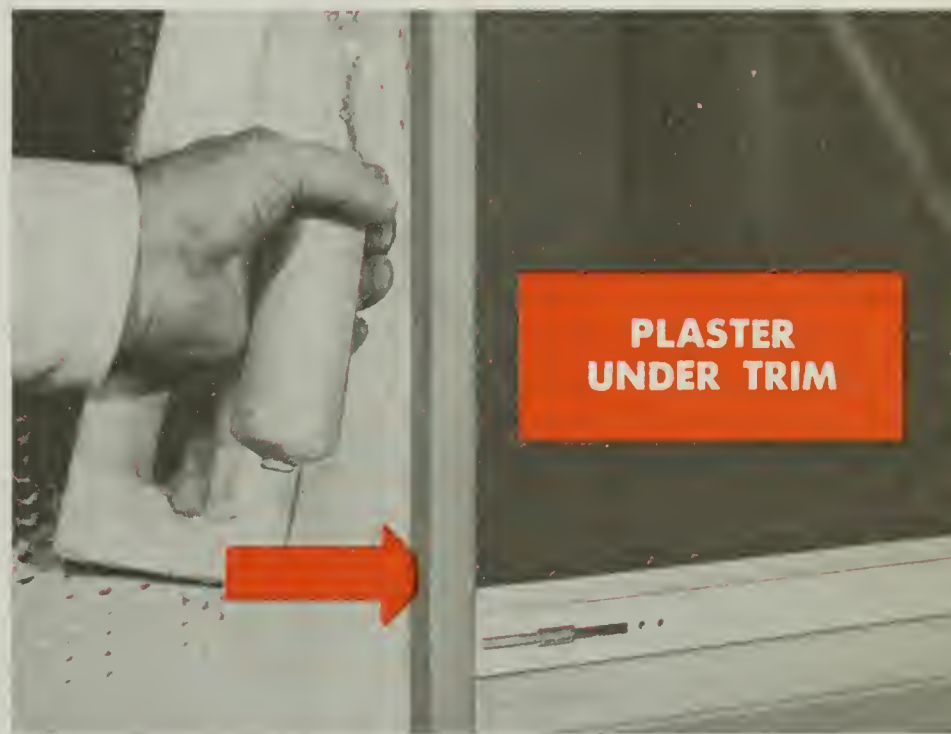
Finish the wall.

In drywall construction, merely slip the wallboard in behind the trim.

This eliminates the more costly method of butting it against the trim.



TRIMMING THE INTERIOR OPENING



The offset design offers the ideal shape for plaster to finish around, because it goes *under* the trim. The plaster sets up with a smooth, uninterrupted surface. It cannot break away from the trim and form unsightly cracks.

Advantages of Installation with Truscon Complete Steel Trim

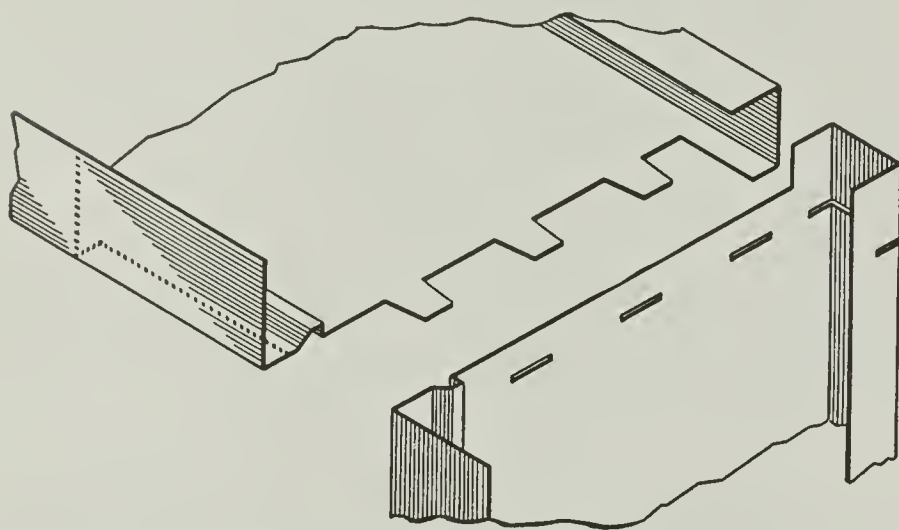
- Completely eliminates expense of plaster returns.
- Saves total cost of materials and labor for all interior and exterior trim—corner bead, stools, aprons, sills.
- Total installed cost well below conventional wood trim and plaster return methods.

FINISHING THE INTERIOR OPENING with TRUSCON STEEL CASING for Double-Hung 138—Casements—Ranch Windows

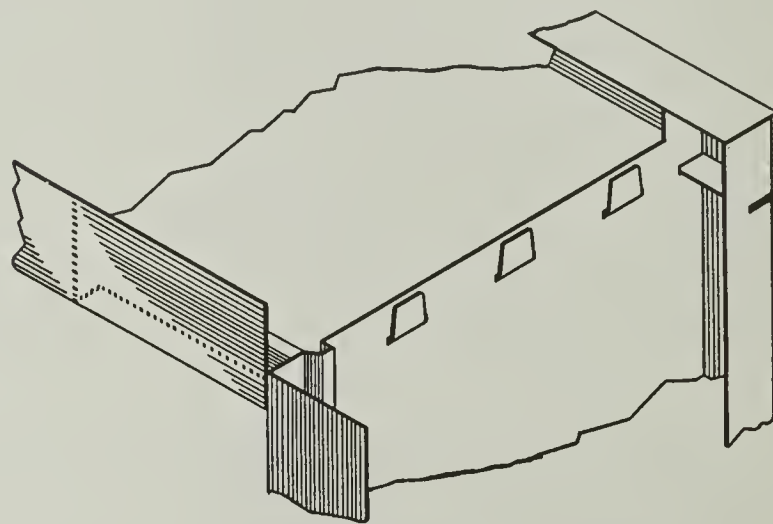
An economical and attractive method for finishing the interior opening is the use of Truscon steel casing.

Steel casing is quickly and easily installed. It saves

labor expense—saves cost of materials for plaster returns—saves cost of furnishing and saves time of attaching corner beads and window stools and aprons—saves time and cost of plastering window reveals at jambs and head.



BEFORE ASSEMBLY

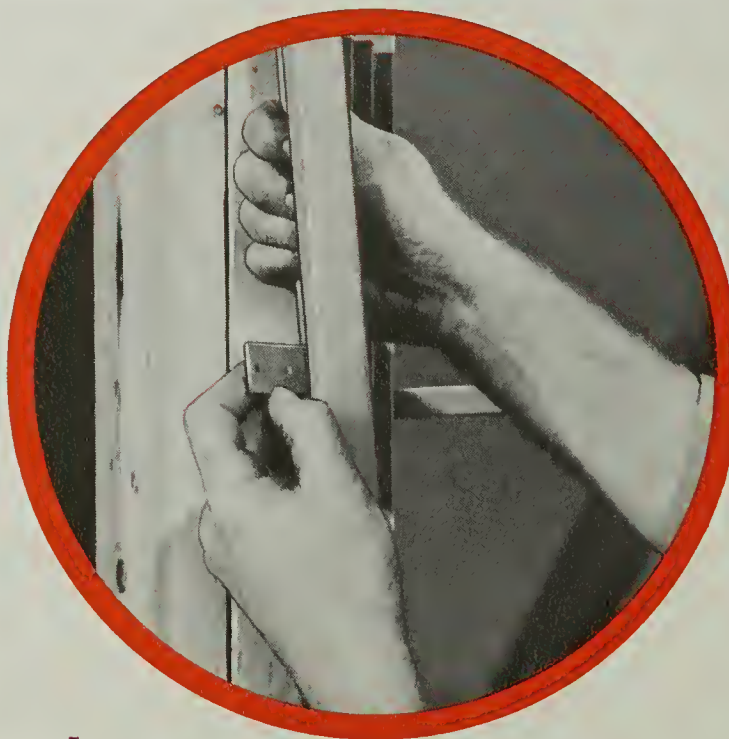


AFTER ASSEMBLY

Steel casings are shipped knocked down. They are easily assembled as shown in this diagram. ▲

The entire assembly is securely fastened in place and built in with the progress of the wall construction.

EASY INSTALLATION STEPS



Step 1

Pre-attach quick snap-in anchors specifically designed for use with steel casings.

Step 2

Set the casing in place.

Note that the casing is factory punched. This makes the next step a simple one.

Step 3

Use the casing as a template and drill holes in the window frame for the attachment screws.

Step 4

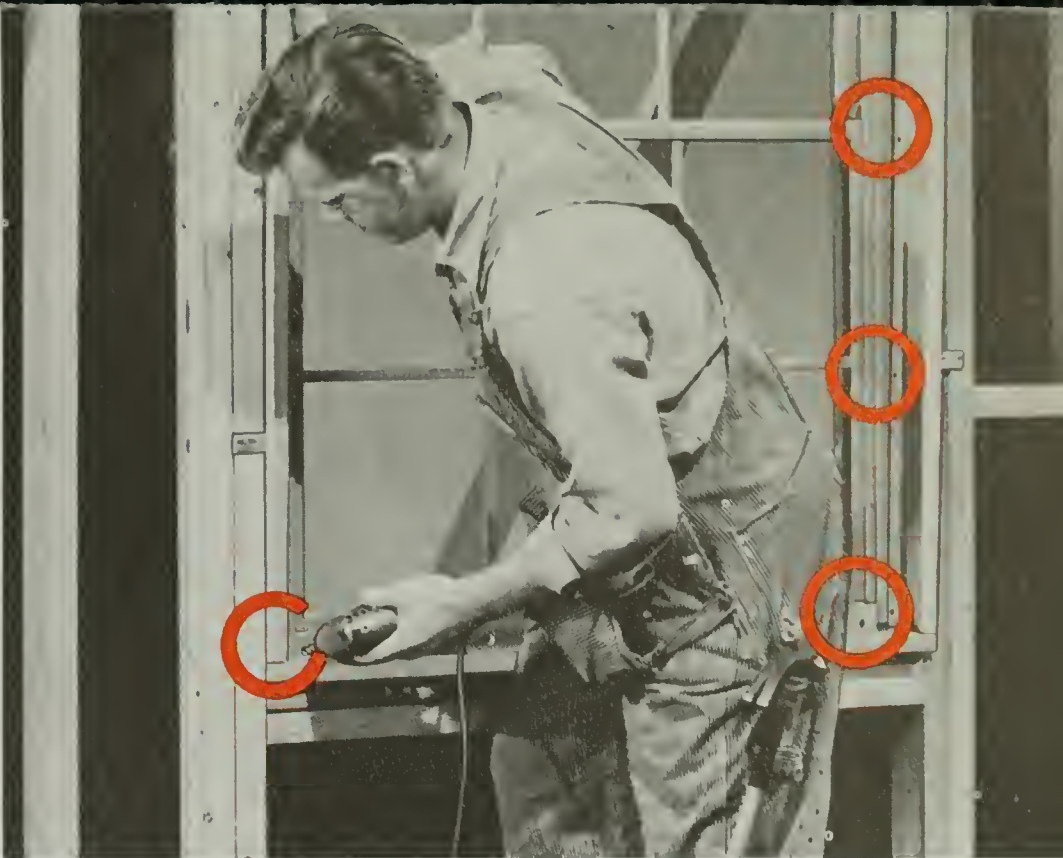
Screw the casing to the window, using self-tapping screws.

Step 5

Anchor the casing to the surrounding framing. The anchors hold the inner edges of the casing firmly in position.

Step 6

Whatever interior finish is to be used, it is merely laid up snugly against the casing.



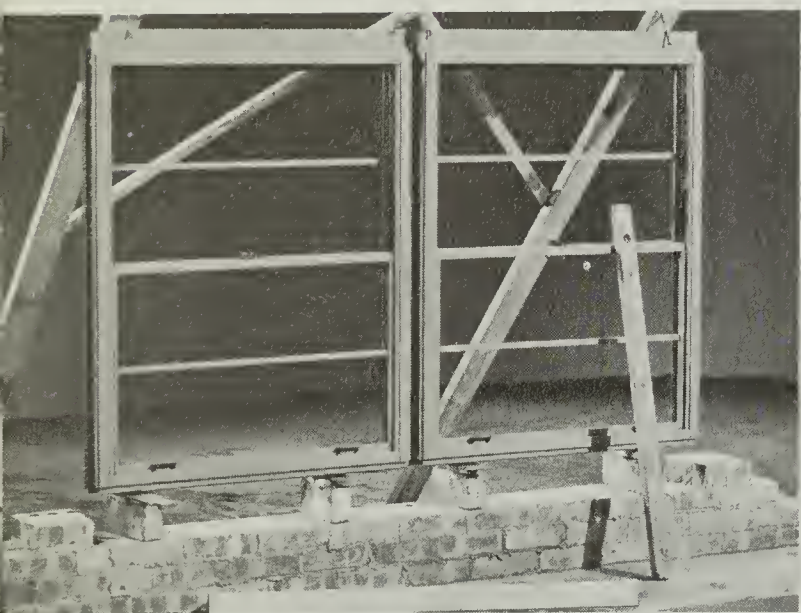
Use twin window opening casings for two equal size double-hung windows joined by a standard mullion.

Casings for three-window openings are used mostly for openings consisting of a picture unit and two double-hung units.

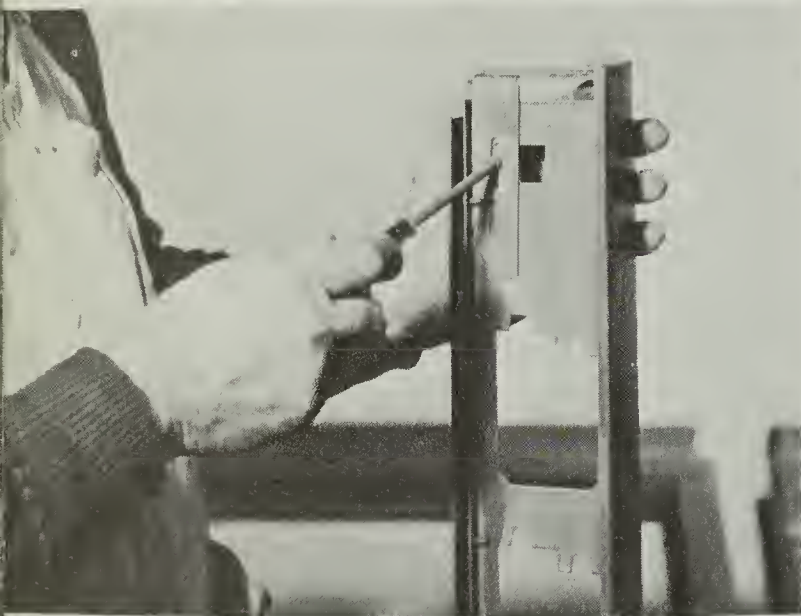
A Few Important Steps for the **INSTALLATION OF MULLIONS**

Use mullions to connect two or more windows in combination arrangements.

The fundamentals for installing mullions apply whether windows are to be joined vertically—jamb to jamb, side by side . . . or horizontally, one above the other—sill to head.



Set the windows to be joined by a mullion in the opening (for frame or veneer construction) or on blocks and braced, as shown here, for masonry and concrete block construction.



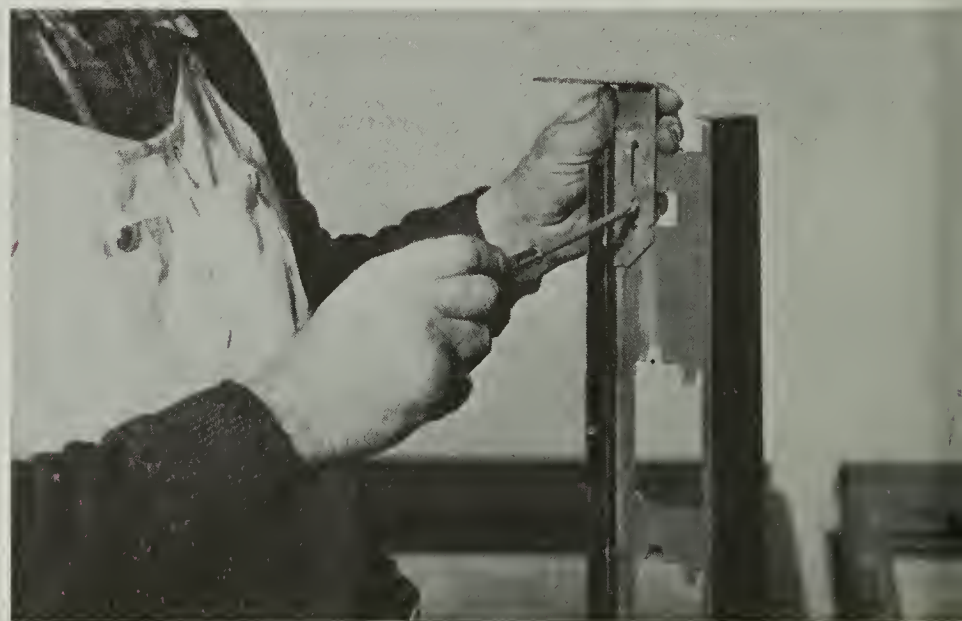
This is how the mullion arrives at the job site. The anchor leg is turned in.

Many mullions have been installed with the anchor leg in just *this* position. But it must be turned out to perform its important function.



Step 1

Remove the anchor, and turn it in an "out" position, as shown here.



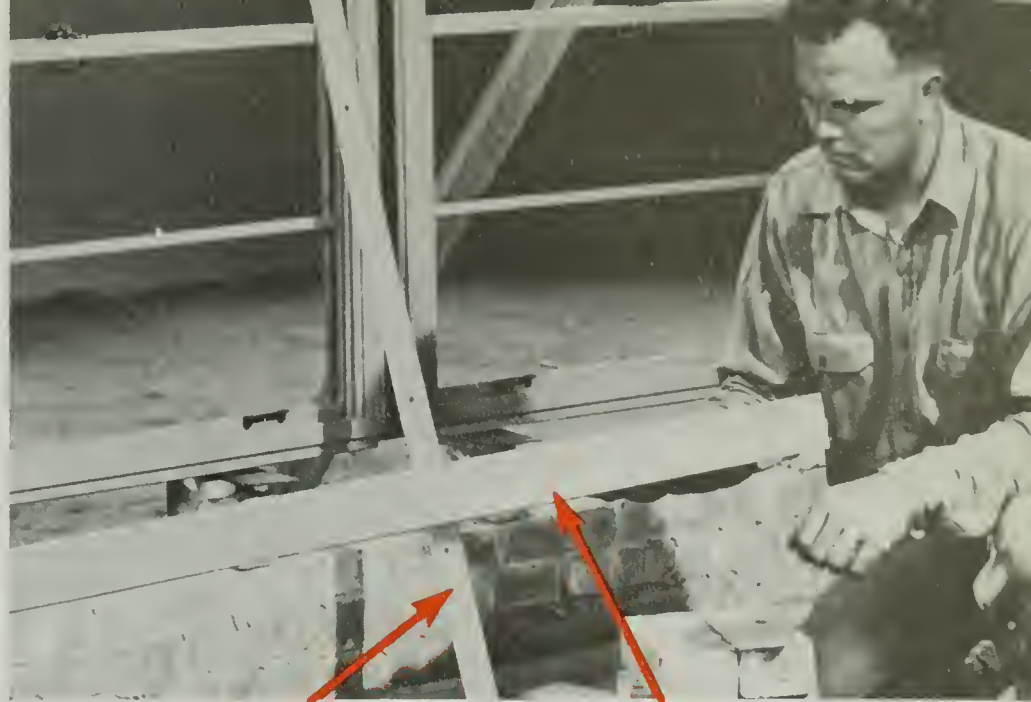
Step 2

Re-attach the anchor with the leg *turned out*.



Step 3

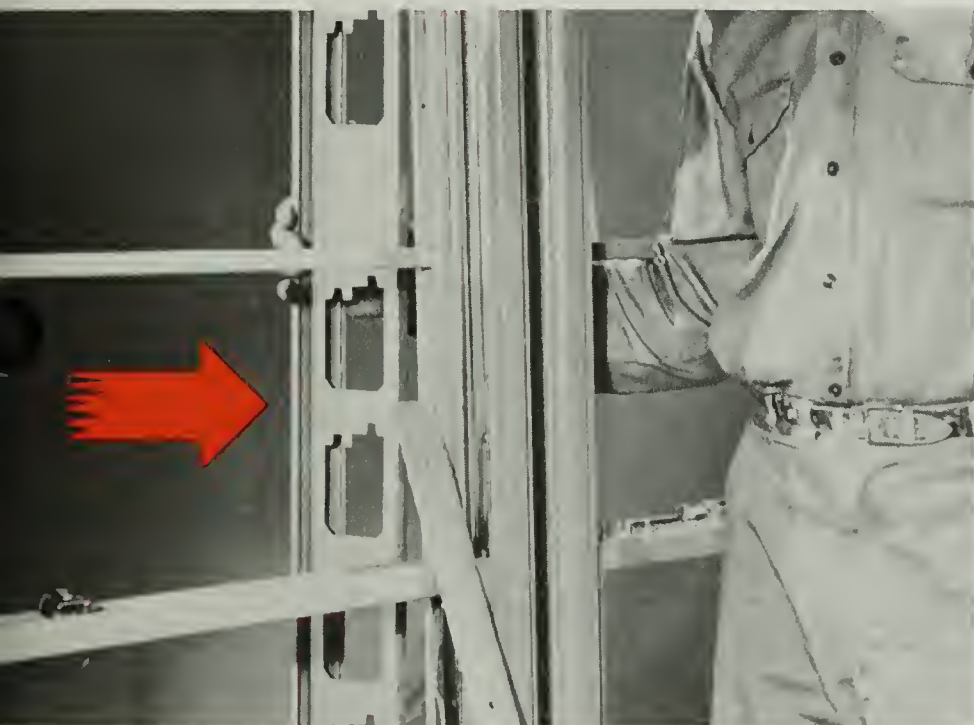
Remove the inside mullion plate.



The **INSIDE PLATE** is the flat, narrow strip.

The **OUTSIDE PLATE** is the wide, formed plate.

Step 4 Caulk between the mullion and the jambs.



Step 5

Turn the outside plate so that it is top end up (anchor at bottom), and insert it from the exterior side. Fit it snugly at the head and jambs.

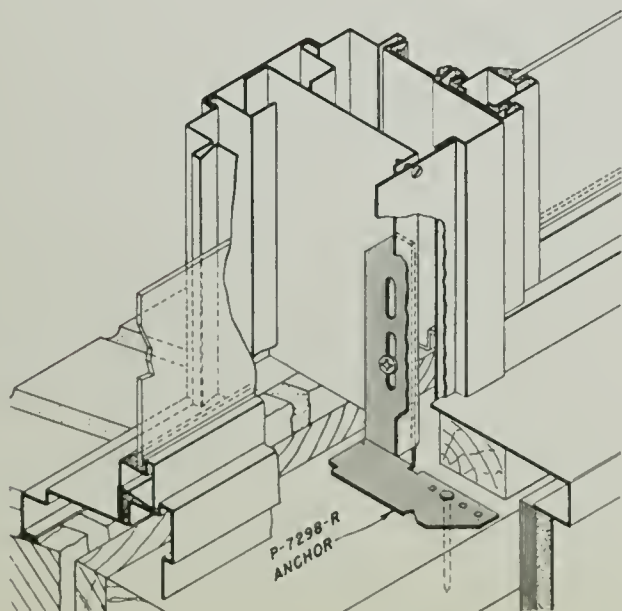


Step 6

Re-attach the inside plate securely to join the two windows solidly.

Step 7

Nail the anchor, at the bottom of the mullion, to masonry or wood, at the sill.



Bottom end of a mullion secured at the sill. This same method of anchorage may be used at the head when required.

Tips on GLAZING

Casements, Awnings, and Ranch Windows

Glazing is one of the key factors that contributes to trouble-free installation.

- Check windows carefully for adjustment of the weathering contact. Any racking that has occurred during transportation, or erection, must be corrected before proceeding with the glazing.
- Regardless of whether casements, ranch windows, or awnings are bench-glazed or field-glazed, check the vent adjustment before the glass is put in.
- Then, close and lock the vents during glazing. Leave them that way until the job sets up.

Truscon awnings are shipped with factory-inserted *glazing separator clips*.

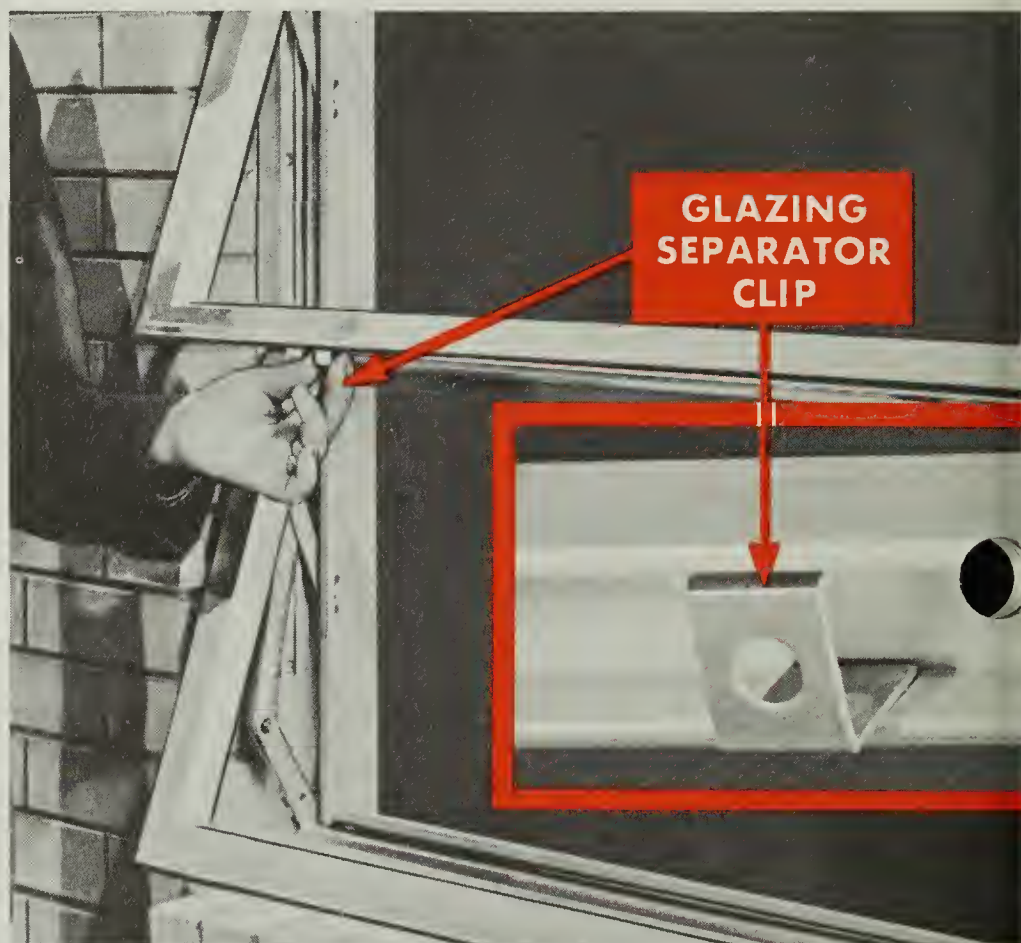
For the standard window there's one for each bottom vent rail to prevent bowing while glazing. Two clips are used for each bottom vent rail on wide windows.

Do not remove these clips before glazing or before the glazing compound has set up.

But . . .

These clips *must* be removed without fail after the compound has set up.

If the clips are not removed at this time, they may create a harmful friction each time the vent closes, and throw the operating mechanism out of adjustment.

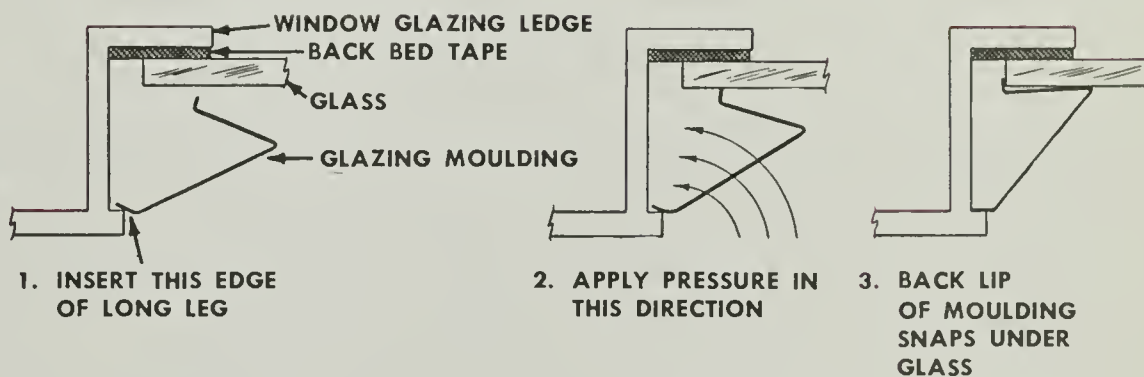
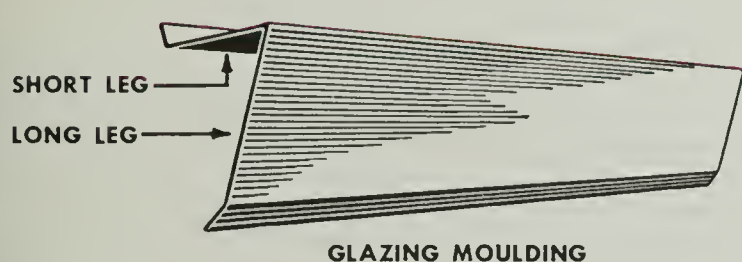


**HEAVY HANDED GLAZING
BOWS SECTIONS
MAKES VENTS BIND**

- **Aluminum** casements and awnings call for extra care during glazing. Heavy-handed glazing can distort them by bowing the sections.

In an awning, for example, bowing of the bottom vent rail against the section below, even with the separator clip in place, can be caused by the glazier forcing putty or glass when using the common heel-of-the-hand putty-spreading technique. Failure to use care can result in the vents binding.

KEEP VENTILATORS CLOSED WHILE GLAZING



Truscon aluminum glazing molding permits the glazing of aluminum awning windows without the use of putty. It's easy to use.

- Apply back bed sealer.
- When glass is set, snap the aluminum glazing strips into place.

5 BASIC STEPS FOR GLAZING 138 DOUBLE-HUNG WINDOWS

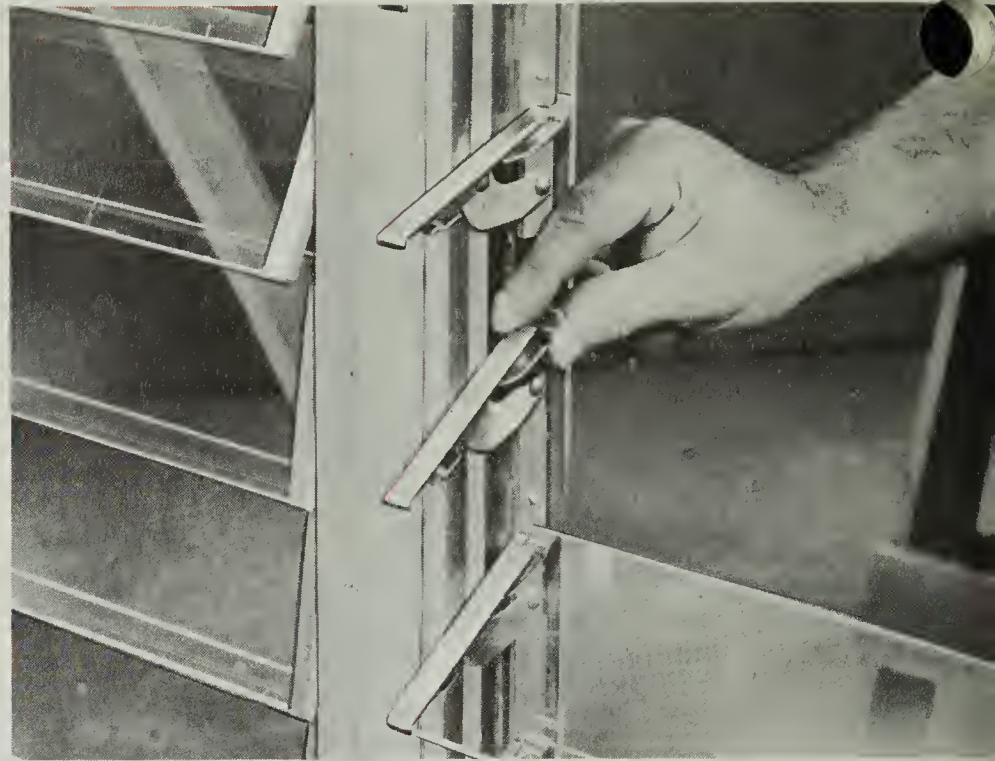
- Remove shipping clip
- Bed putty
- Press glass into place
- Insert glazing clips to hold glass in place
- Face putty and trim to a neat line

GLAZING JALOUSIES



Always glaze a jalousie *in the wall*. Never bench-glaze it.

Put in louvers from the inside, and *before* attaching the operator.



Make sure the tension legs are pinched up close enough to hold the glass tight . . . and to enable you to slip the louver into place with a minimum bending of the tension legs at each end. Without the proper tension, the window will rattle and will not be weathertight.



Hold the louver with fingers above and thumbs below, and angled slightly. Keep a light upward pressure under the leading edge while sliding the louver into the clips. This will minimize bending on the tension legs.



Exert a firm quick thrust of the thumbs to put the louver through the second pair of tension legs. The first pair will snap up behind it.

After glazing, check the closure *before* the operator is attached.

If the louvers are not making tight, positive weathering contact, the operator won't force them to.

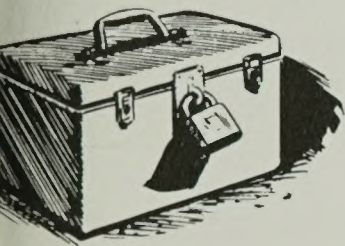
HANDLING METAL WINDOWS ON THE JOB



Windows should not be used as scaffolds or ladders, just because they happen to be within reach.



Keep ventilators closed at all times during the installation, so that no material will get between the ventilator and the frame contacts.



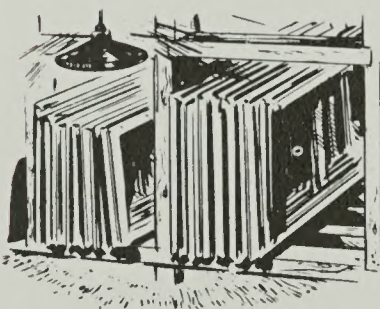
Truscon ships hardware with each window unit. This hardware should be placed and kept where it can't be stolen or lost . . . and where it can be found when it's ready to be installed.



Windows should be carried at all times, and should never be dropped or dragged.



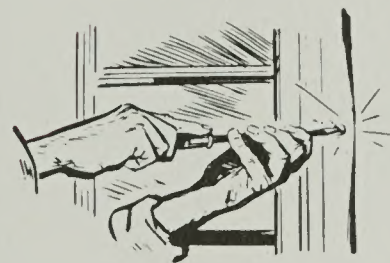
Concrete should not be shovelled through a basement window after it has been installed.



Store windows vertically in a clean, dry location. Adequate circulation of air should be allowed around all stored aluminum windows.



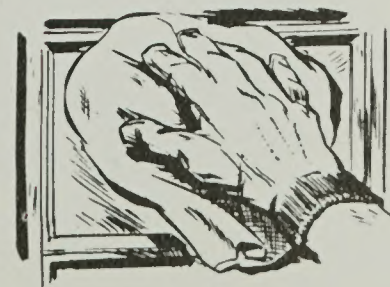
A damaged window should never be installed with the idea of replacing it later.



During erection, do not draw up the installation screws so tight they bow or distort the frame.

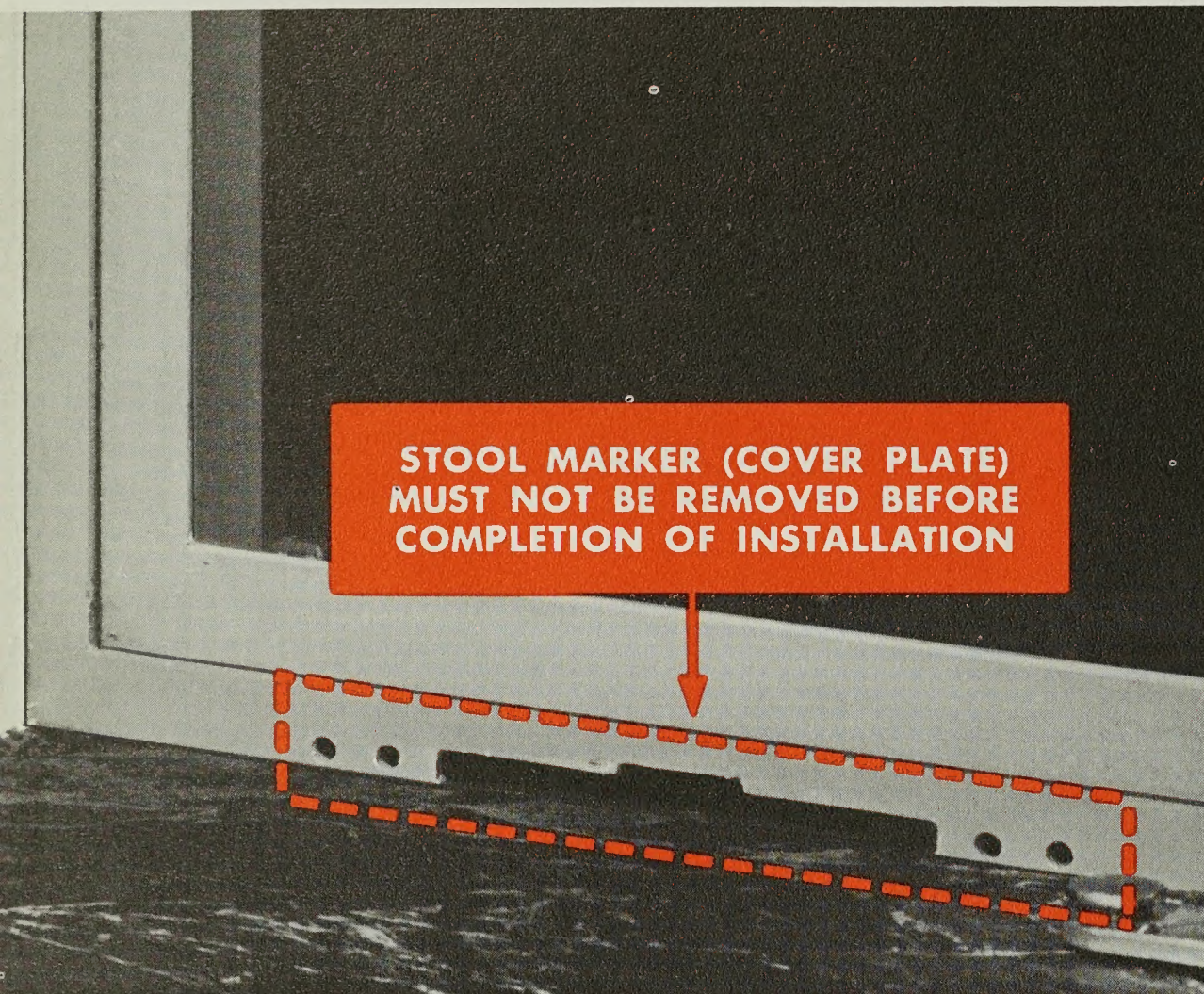


All wet mortar, cement, or plaster should be washed off aluminum windows immediately, so that it will not come in contact with any part of the window and stain the aluminum. Mask the finish, if necessary.



If a muriatic acid is used to clean the masonry, all windows must be thoroughly washed with soap and water.

IMPORTANT TIPS FOR TROUBLE-FREE INSTALLATIONS



Always determine what *weight of glass* is to be used. Normally, Truscon double-hung series 138 windows are equipped with spring balances tensioned for $\frac{1}{8}$ " glass. If $\frac{1}{4}$ " glass is to be used, heavier spring balances are needed to accommodate the heavier glass.

In *all* casement installations—in every type of construction—sufficient room must be left for the stool to be installed low enough to allow clearance for the operator.



This picture shows faulty installation. There is no room here for installation of the operator.

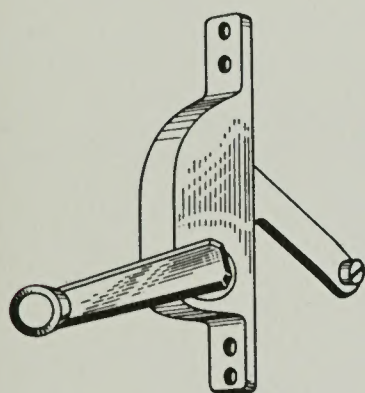
To prevent such a condition, the stool marker (cover plate) must not be removed until the stool is installed.

For any type of window that takes an inside screen, the plaster return must leave clearance for the screen clips to be attached. This clearance should be approximately $\frac{3}{8}$ ". When the plaster return is too close, or covers the hole, there's no room for the clip.

Caulking with a good quality mastic around the entire perimeter of the window is an absolute "*must*."

This goes for all joining of metal to metal—for instance, between window and metal casing, or between jambs and a mullion bar in a multiple opening. This keeps out wind, dust, driving rain, or powdered snow.

**WRONG —
LEAVE $\frac{3}{8}$ "
CLEARANCE
FOR SCREEN
CLIPS**



STANDARD OPERATOR

INSTALLING JALOUSIE OPERATOR

1. Attach the operator *after* the jalousie has been installed.
2. With the louver closed, insert the jalousie operator arm through the slot in the window jamb.
3. Attach the operator arm to the connecting arm on the draw bar, using the shoulder screw furnished with the operator.
4. Place the operator into position and fasten the operator to the jalousie.

All installation steps should be in this order.

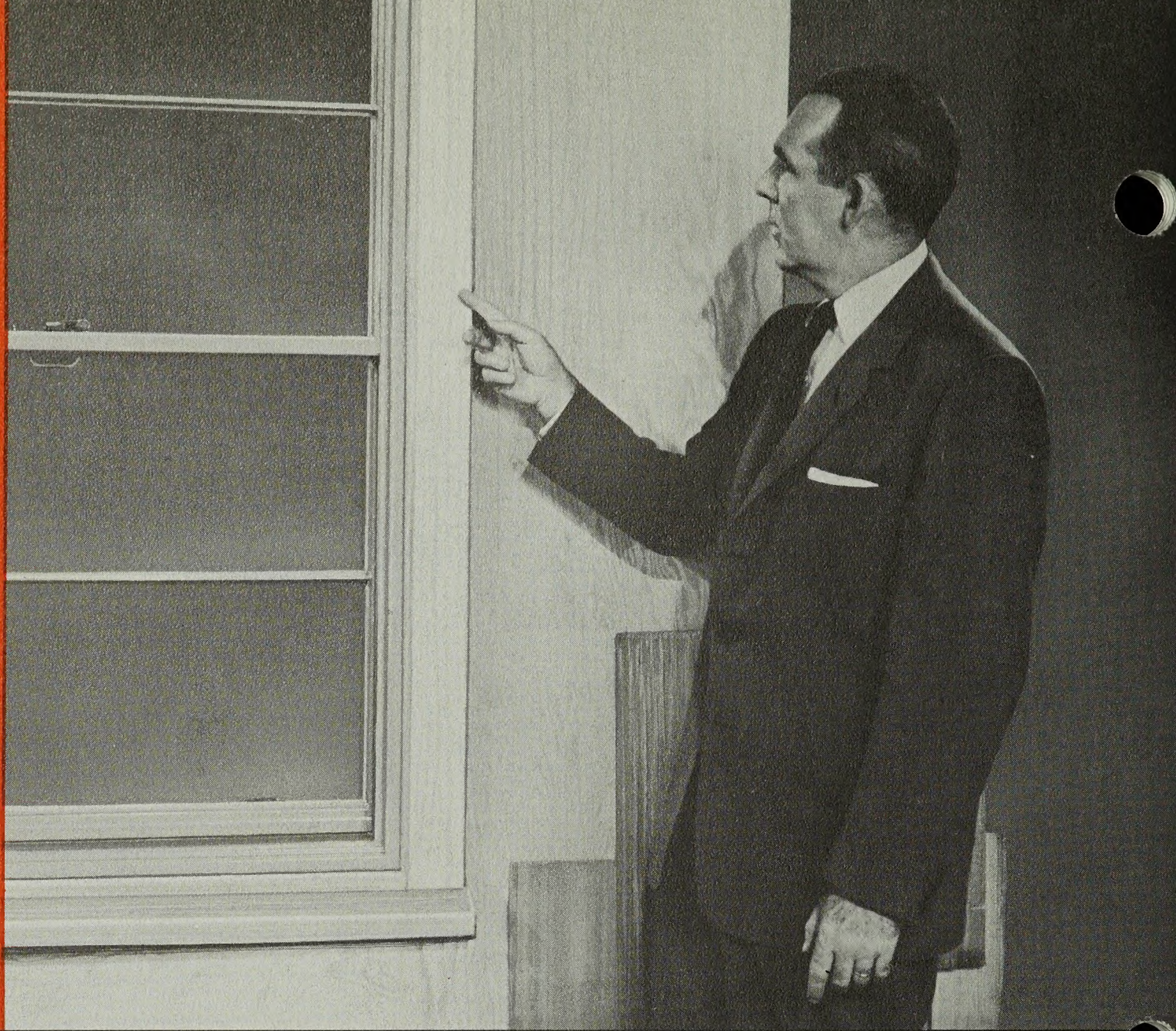
Any window with a sill operator should be anchored at the sill for best performance. (Example: In an awning window, the torque bar in the sill could twist the sill if it were not anchored.)

With any type of window in any type of construction, where brick or concrete slabs are being laid up alongside it, the bricks or blocks should *not* be crowded against the window. Crowding can cause bowing of the jambs.

A FEW INSTALLATION DON'TS... IN SUMMARY

- DON'T**—force or twist a window to make it fit in a faulty opening.
- DON'T**—fill jambs with mortar.
- DON'T**—crowd bricks or concrete blocks against any part of the window.
- DON'T**—install mullions with anchor legs turned in.
- DON'T**—use poor quality for caulking.
- DON'T**—use standard width fins in concrete block construction.
- DON'T**—glaze windows with ventilators open.
- DON'T**—remove glazing separator clips before glazing.
- DON'T**—leave glazing separator clips in the window after the compound has set up.
- DON'T**—glaze jalousies out of the wall.
- DON'T**—install jalousie operators until jalousies have been installed.

**There Is
No Point
In Having
Quality
Windows
Without
Quality
Installations**



**QUALITY INSTALLATIONS—honest attention to details
and careful application of basic fundamentals—
MEAN . . .**

- installations that are less expensive in the long run because they minimize the need for expensive service call-backs for adjustments.
- elimination of complaints due to mistakes and faulty installation.
- increased prestige for everyone responsible in any way with the installations.



TRUSCON—A NAME YOU CAN BUILD ON